

**THE ROLE OF SELF-COMPASSION IN
YOUNG WOMEN ATHLETES' EUDAIMONIC WELL-BEING**

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Abstract

Self-compassion, a healthy way of relating to the self that is premised on treating oneself with kindness and understanding in the face of pain and failure (Neff, 2003a, 2003b), is emerging as a potentially useful way to transform young women athletes' difficult experiences in sport (Mosewich, Crocker, Kowalski, & DeLongis, 2013; Mosewich et al., 2011). Although associated with a variety of well-being indices, self-compassion has largely been neglected in the eudaimonic tradition concerned with psychological flourishing (Ryff, 1989, 1995). The themes of eudaimonic well-being – which include feeling autonomous and competent, the pursuit of continuous growth, having quality relations with others, finding purpose in life, and acceptance of oneself (Ryff, 1989, 1995) – closely align with many of the goals and motives that young women athletes have reported for competing in sport (e.g., Chatzisarantis & Hagger, 2007; Kilpatrick et al., 2005). However, being eudaimonically-well or flourishing in sport is not a given, as young women athletes can encounter a variety of difficult experiences as they journey through athletic pursuits (Fraser-Thomas et al., 2005; Krane et al., 2001; Mosewich et al., 2009). Whether the promise of self-compassion as a way to transform difficult sport experiences might have similar potential for young women athletes' eudaimonic well-being is currently unknown; that is, whether self-compassion contributes to or thwarts psychological flourishing is an important question. The purpose of the present program of research was to explore the role of self-compassion in young women athletes' psychological flourishing.

Using a mixed methods research design, Study 1 explored self-compassion and eudaimonic well-being in young women athletes. The quantitative phase consisted of young women athletes ($n = 83$; $M_{\text{age}} = 18.70$ years) completing an online survey including trait-level measures of self-compassion and eudaimonic well-being, as well as measures of plausible process variables (i.e., passivity, responsibility, initiative, and self-determination). In addition to finding evidence for a positive relationship between self-compassion and eudaimonic well-being ($r = .76, p < .01$), the data were consistent with a model of multiple mediation whereby, as a group, passivity, responsibility, initiative, and self-determination emerged as potential mechanism variables. Expanding on the links from the quantitative phase, a qualitative phase consisting of one-on-one interviews and focus group discussions with young women athletes ($n = 11$; $M_{\text{age}} = 19.72$ years) explored when and how self-compassion might be useful in striving to reach one's potential in sport. Self-compassion was described as advantageous in difficult sport

situations (i.e., when failing to meet personal goals, making mistakes during competition, experiencing an injury, reaching a plateau) by increasing positivity, perseverance, and responsibility, as well as decreasing rumination. The qualitative findings support previous claims that self-compassion is beneficial during emotionally difficult situations (Leary et al., 2007; Neff, 2003b). However, concerns were expressed about being too self-compassionate in sport; in particular, that self-compassion might lead to complacency, which would ultimately thwart psychological flourishing in sport.

To better understand the seeming complex relationship between self-compassion and eudaimonic well-being specifically in the sport domain, Study 2 explored the role of self-compassion during hypothetical, emotionally difficult, sport-specific scenarios in relation to psychological flourishing in sport. Young women athletes ($N = 137$; $M_{\text{age}} = 19.04$ years) completed an online survey including trait-level measures of self-compassion and eudaimonic well-being, as well as brief reaction measures (i.e., self-compassionate, positive, perseverant, responsible, ruminative, passive, and self-critical reactions) to hypothetical, emotionally difficult, sport scenarios, and proxy indicators of eudaimonic well-being in sport. The results contextualized the relationship between self-compassion and eudaimonic well-being to the sport domain, showing positive associations between self-compassion and autonomy, meaning (i.e., personal growth) and vitality (i.e., purpose in life) in sport, and body appreciation (i.e., self-acceptance). Findings from path model analyses suggest that increased positive and perseverant reactions and decreased passive reactions to emotionally difficult sport scenarios might explain the relationship between self-compassion and certain indices of eudaimonic well-being in sport (e.g., autonomy, vitality in sport, body appreciation). The pattern of findings suggest that having a kind and understanding self-attitude might nurture constructive reactions to emotionally difficult sport scenarios, enabling athletes to strive towards their potential in sport.

Taken together, findings from the program of research presented here suggest that compassionately relating to the self might be advantageous for young women athletes' eudaimonic well-being, both in general and in terms of eudaimonic indicators that are specific to psychological flourishing in sport. A conceptual model is formulated to help understand the relationship between self-compassion and eudaimonic well-being. Reduced passivity emerged as one possible process variable, which is a key finding that directly addresses the concern as to whether self-compassion leads to complacency; a concern that appears both within the larger

self-compassion body of literature as well as qualitative findings in my research. The identification of promising mechanism variables is an important contribution to the literature, as the findings reported here can be further examined in future research directed at the promotion of self-compassion for athletes' flourishing in sport. Caution is warranted, however, for researchers moving forward in this area, particularly in terms of athletes' concerns with being self-compassionate. Building off of my research findings and conclusions, two noted directions for future research are (1) to explore ways for athletes to recognize the potential usefulness of self-compassion in sport and (2) to longitudinally and/or experimentally target mechanism variables that will have associated changes on eudaimonic outcomes in sport. Such research efforts will work towards the development of self-compassion in sport programs that are theoretically- and empirically-driven, and have the end goal of helping young women athletes reach their full potential.

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Dedication

To my nephews, Bronto, Ky, and Rush, for being the greatest source of a reality check.

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List of Abbreviations

BAS	Body Appreciation Scale
BNSSS	Basic Need Satisfaction in Sport Scale
CBAS	Cognitive-Behavioral Avoidance Scale
NPI	Narcissistic Personality Inventory
PANAS	Positive and Negative Affect Scale
PGIS	Personal Growth Initiative Scale
PRQ	Personal Responsibility Questionnaire
PSPP-R	Revised Physical Self-Perception Profile
SCS	Self-Compassion Scale
SDS	Self-Determination Scale
SoMS	Sense of Meaning Scale
SPWB	Scales of Psychological Well-Being
SVS	Subjective Vitality Scale
SWLS	Satisfaction with Life Scale

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Chapter 1: General Introduction

Despite the physical and psychological benefits of involvement in sport (Nichols, Sanborn, & Essery, 2007; Public Health Agency of Canada, 2003; World Health Organization, 2008), participation in sport can include a variety of difficulties and be emotionally painful for young women (Krane, Waldron, Michalenok, & Stiles-Shipley, 2001). Given the challenges they may face in sport, young women athletes may benefit from a kind, caring, and nonjudgmental attitude toward themselves. Self-compassion is an emotionally positive self-attitude that includes embracing all aspects of one's experience (Neff, 2003a, 2003b, 2004, 2009). Rather than avoiding one's painful experiences, treating oneself with compassion generates the desire to heal oneself with kindness in order to ensure one's health and well-being (Neff & Vonk, 2009). Thus, self-compassion may be a viable resource for young women athletes to deal with their inadequacies and failures in order to flourish and reach their full potential. However, the role of self-compassion in young women athletes' psychological flourishing has yet to be explored.

1.1 Women Athletes' Sport Experiences

Sport refers to organized forms of physical activity that take place in various contexts for competition, play, health, well-being, recreation, and other reasons (Edwards, Ngcobo, Edwards, & Palavar, 2005). Research has shown that participation in sport is associated with numerous benefits. Some of the physical benefits include improved cardiovascular fitness, muscular strength, muscular endurance, and flexibility; increased healthy weight; and decreased risk of heart disease, stroke, high blood pressure, obesity, diabetes, and cancer (Côté & Hay, 2002; Public Health Agency of Canada, 2003; World Health Organization, 2008). Participation in sport has also been shown to foster positive relationships, positive body image, healthy eating patterns, leadership skills, cooperation, discipline, achievement motivation, commitment, responsibility, and initiative (Côté, 2002; Evans & Roberts, 1987; Fraser-Thomas, Côté, & Deakin, 2005; Larson, 2000; Marten-DiBartolo & Shaffer, 2002; Wankel & Berger, 1990; Wright & Côté, 2003). In addition, sport participation has been positively linked to school attendance and school grades, as well as negatively related to smoking, school dropout, and delinquent behaviour (Aaron et al., 1995; Marsh, 1993; McMillan & Reed, 1994). From the perspective of women athletes, the benefits of sport involvement include feeling pride in their athletic achievements; being valued for their skill; gaining confidence and self-respect; and

feeling empowered, self-sufficient, and independent (George, 2005; Krane, Choi, Baird, Aimar, & Kauer, 2004; Mosewich, Vangool, Kowalski, & McHugh, 2009).

Structured extracurricular activities such as sport provide fun and enjoyment (Public Health Agency of Canada, 2003) and are associated with greater life satisfaction, which contributes to one's overall positive development (Gilman, 2001). Given the many benefits that are associated with sport, it is important to note that early (e.g., late adolescence) experiences and participation in sport and physical activity appear to positively predict women's sport and physical activity participation in adulthood (Scheerder et al., 2006; Vanreusel et al., 1993). Despite the benefits associated with sport, participation in sport can be difficult, challenging, and emotionally painful. Research suggests that sport experiences can result in negative physical, emotional, psychological, and social outcomes (Fraser-Thomas et al., 2005).

Sport involvement has been linked to negative physical outcomes and unhealthy behaviours such as sport-related injuries, disordered eating, obsessive concerns over body weight, excessive exercising, and training through injuries (Anshel, 2004; Beals & Manore, 1994; Davis, 1992; Krane et al., 2001). Research has also shown that some athletes consider physically aggressive and violent behaviours to be acceptable and legitimate aspects of the sport environment (Gardner & Janelle, 2002). Rather than promote empowerment, autonomy, and skill building, too often sport promotes rigid masculinity, aggression, and competition (Fraser-Thomas et al., 2005). Sport environments have also been labeled as being too serious and intimidating, having a narrow focus on winning, lacking enjoyment, and including pressures to achieve and maintain an ideal body shape (Fraser-Thomas et al., 2005; Mosewich et al., 2009; Orlick, 1974).

Women athletes are immersed in an environment that is highly evaluative, both performance- and appearance-based, resulting in perceived pressure to improve their sport performance and their physiques (Krane et al., 2001). Research has shown that a common challenge faced by many young women athletes is negotiating between the ideal, small, thin, and toned feminine body-type, and the athletic, strong, masculine, sports-person body-type (Krane et al., 2004; Mosewich et al., 2009). That is, women athletes often struggle with the discrepancy between the lean and toned ideal female body, and attaining a strong and muscular body that is required in many sports. Young women athletes have expressed concern over the continual negotiation between wanting a feminine appearance and having a body that will result in

successful sport performance, and have noted that accepting their muscular bodies is a constant struggle (Mosewich et al., 2009). Women athletes are often negatively affected by knowing that their bodies differ from the ideal feminine body and are concerned about evaluations made by others (Krane et al., 2004). Women athletes appear to be caught up in a complex give-and-take between having an aesthetically pleasing physique that meets societal standards, and acquiring a body that will improve their sport performance. This struggle is never fully resolved, as many young women athletes believe that it is not possible to be both feminine and athletic; rather, they often think that when a woman takes on a sport role, she loses all femininity (Krane et al., 2004).

Additional challenges exist for women involved in sports that have revealing uniforms (e.g., track athletes, gymnasts, swimmers, figure skaters). Krane et al. (2004) found that women whose sport requires revealing uniforms had discomfort over their uniforms being too tight and revealing, looking too big in their uniforms, and feeling exposed or sexualized in their uniforms. Similarly, Ziegler et al. (1998) found that women athletes who wear revealing uniforms report high levels of body dissatisfaction and disordered eating behaviours. Another risk for women in sports where appearance is emphasized or judged (e.g., figure skating) or sports where low body weight is the norm (e.g., distance running) is female athlete triad, which consists of disordered eating behaviors, amenorrhea, and osteoporosis (Waldrop, 2005). Given that female athlete triad is often associated with depression and anxiety (Rome et al., 2003), the potential consequences associated with sports that require revealing uniforms are troublesome.

Other difficult experiences that young women may encounter in sport environments include social comparisons, self-evaluations, and evaluations by others. Mosewich et al. (2009) found that the young women athletes in their study compared themselves to a variety of others (e.g., training partners, competitors), and made comparisons on a variety of attributes (e.g., body size, weight, muscle tone). The women also expressed that they often felt their performance and appearance were evaluated and judged by others (e.g., coaches, parents, other athletes), which added further pressure to an already challenging environment. In addition to recognizing the various comparisons and evaluations within their sport environments, the women also realized that these comparisons and evaluations were distressing, which could be harmful and detrimental to their physical and psychological well-being. The women's presumptions are not surprising, given that negative experiences in sport have led to low self-confidence and low self-esteem (Martens, 1993).

The preceding discussion illustrates that involvement in sport can be a challenging, difficult, and even negative experience for many young women, and that young women athletes are at risk for potentially negative outcomes associated with participation in their sport. While sport has the potential to positively impact young women, it is necessary to recognize that positive experiences and positive development through sport is not guaranteed. Given the challenging and emotionally painful experiences that young women can endure in sport, they might benefit from a caring, understanding, and nonjudgmental attitude towards themselves.

1.2 Self-Compassion

Self-compassion is an emotionally positive self-attitude, which represents a healthy relationship toward oneself (Neff, 2003a, 2003b; Neff & Vonk, 2009). Dominant in Eastern philosophical thought for centuries, Kristin Neff (2003a, 2003b, 2004, 2009) brought the construct of self-compassion into Western psychological literature. Self-compassion is a healthy awareness or stance toward the self that does not involve evaluations of one's self-worth, but rather embraces all aspects of one's experiences (Neff & Vonk, 2009). Similar to having compassion for others, self-compassion involves extending compassion to oneself by being touched by and open to one's own suffering. That is, being self-compassionate entails not avoiding or disconnecting from one's inadequacies or failures, but rather generating the desire to heal oneself with kindness, and acknowledging the steps necessary to ensure one's health, functioning, and well-being (Neff, 2003b; Neff, 2009; Neff & Vonk, 2009).

As outlined by Neff (2003a, 2003b, 2004, 2009), self-compassion consists of three key components: self-kindness versus self-judgment, common humanity versus isolation, and mindfulness versus over-identification. Self-kindness entails offering oneself warmth and non-judgmental understanding, rather than belittling or berating oneself with self-criticism when confronted with suffering, inadequacy, or failure. Common humanity includes recognizing that being imperfect, making mistakes, and encountering life's difficulties are part of the shared human experience – things that we all go through. Mindfulness is the middle ground between rumination and thought-suppression, whereby a balanced approach is taken so that painful feelings are neither suppressed nor exaggerated. Mindfulness involves recognizing and acknowledging one's feelings, but not getting carried away with them. According to Neff, self-kindness, common humanity, and mindfulness combine and mutually interact to create a self-compassionate frame of mind.

Although a fair amount of self-compassion research has focused on adults, only a handful of studies have explored the role of self-compassion in the lives of adolescents and emerging adults (e.g., Magnus, Kowalski, & McHugh, 2010; Mosewich, Kowalski, Sabiston, Sedgwick, & Tracy, 2011; Neff & McGehee, 2010). Self-compassion would likely be highly relevant to the experiences of adolescents and emerging adults, as these developmental periods involve identity formation and exploration, which includes a variety of self-evaluations and intense pressures (Arnett, 2000; Harter, 1999). Adolescence is marked by negative self-evaluations and social comparisons, which are coupled with extreme self-absorption and egocentrism (Harter, 1999; Neff & McGehee, 2010). Emerging adults (i.e., the years from the late teens to the early-20s) start to take responsibility for themselves, make independent decisions, and face disappointment, rejection, and failure during identity exploration (Arnett, 2000). Given the emotional difficulties experienced during the teen years as well as challenging life circumstances during the early-20s, adolescents and young adults may benefit from feelings of acceptance and self-kindness. Having fewer harsh self-judgments and framing one's experience as part of the shared human experience would provide a sense of connectedness to cope with life's challenges. Additionally, self-compassion may help prevent adolescents and emerging adults from obsessively ruminating on negative thoughts and emotions.

Self-compassion has been advocated as a tool or resource that is particularly relevant during times of suffering or failure to deal with life's challenges and difficulties (Neff, 2003a, 2003b). When individuals are acting self-compassionately, negative emotions are neutralized and positive states of mind are promoted (Neff, Hsieh, & Dejitterat, 2005). Thus, self-compassion may be a viable resource for the difficult experiences that young women encounter in sport. Given that sport can be particularly challenging and painful for young women (Krane et al., 2001), self-compassion may play an integral role in transforming their sport activities into more positive pursuits.

Self-compassion might be important for young women athletes because it does not involve evaluations that dictate one's self-worth; rather, self-compassion promotes self-acceptance. In addition to approaching perceived weaknesses, limitations, and failures with nonjudgmental kindness and understanding, self-compassion may enable young women to recognize that their experiences are not isolated, but are experienced by other athletes as well (i.e., part of the shared human experience). Treating oneself with compassion may also

encourage young women to take a balanced approach to their shortcomings and inadequacies in sport, so as not to suppress nor exaggerate their difficult experiences. Hence, self-compassion may be a resource for young women to assist them when they experience challenges, setbacks, and even failures in sport.

Self-compassion may be useful for young women in a variety of difficult sport experiences that have been identified in the literature, such as perceiving oneself as having poor abilities, feeling excessive pressure to win or perform well, encountering a performance plateau, navigating through the politics of sport, and experiencing an injury (Mosewich, Crocker, & Kowalski, 2013; Wankel & Berger, 1990). Self-compassion may be particularly relevant to young women athletes because of the many instances where they feel compared to others or evaluated, both by oneself and by others, in terms of one's performance and appearance (Mosewich et al., 2009). Krane et al. (2004) found that women athletes consistently struggled with the incompatibility between the small and thin ideal feminine physique, and the need to have a strong masculine physique suitable for their sport. Some of the women athletes in their study discussed being aware that they are different from non-athletes, especially their lack of a feminine appearance. Although this awareness caused discomfort and distress for some women, others noted that they took comfort in recognizing that other women athletes felt and experienced similar struggles. That is, the women realized that they were not alone or isolated in their experiences, but rather they were connected to others who were experiencing similar hardships. The women's awareness of their shared experiences with others mirrors the common humanity component of self-compassion – recognizing that we are part of the shared human condition in which all people experience difficulties and struggles (Neff, 2009). Therefore, the development of self-compassion might be helpful during the comparisons and evaluations that women endure in their sport experiences, perhaps because self-compassion does not require positive evaluations of oneself or comparisons with others (Neff, Kirkpatrick, & Rude, 2007; Neff, 2009).

Seminal research on self-compassion in sport by Mosewich et al. (2011) found that self-compassion was negatively related to shame proneness, social physique anxiety, objectified body self-consciousness, body surveillance, body shame, fear of failure, and fear of negative evaluation among young women athletes. Expanding on these initial findings, Mosewich, Crocker, and Kowalski (2013) identified self-compassion as a potential resource that might help young women athletes negotiate a variety of setbacks experienced in sport (e.g., poor

performance). Mosewich, Crocker, and Kowalski (2013) noted that extending compassion towards the self might be a constructive and effective way for athletes to (1) accurately and kindly acknowledge one's shortcomings, (2) deal with feelings of isolation, and (3) strive for balance in their difficult sport experiences. Recently, Mosewich, Crocker, Kowalski, and DeLongis (2013) developed a 7-day self-compassion in sport intervention that was shown to be effective in managing women athletes' self-criticism, rumination, and concern over mistakes. Mosewich, Crocker, Kowalski, and DeLongis (2013) concluded that promoting self-compassionate mind-frames seems to hold merit in helping athletes manage difficult sport experiences.

In sum, evidence is accumulating to suggest that being self-compassionate might be an effective resource to help young women athletes manage their challenging, painful, and potentially detrimental experiences in sport. In an effort to ensure that sport provides opportunities for positive experiences, healthy development, and greater well-being, strategies or tools need to be identified to best negotiate painful sport experiences. Self-compassion is a construct with great potential for positive well-being (Neff, 2003b). By transforming sport into a more positive experience, individuals may experience positive and healthy development (Fraser-Thomas et al., 2005).

1.3 Sport and Psychological Well-Being

One area of research that has received considerable attention when it comes to sport is psychological well-being, and more specifically positive psychological well-being. Participation in sport has been associated with improved self-concept, emotional development, and subjective well-being, as well as greater positive affect and self-competence (Bunker, 1998; Fraser-Thomas et al., 2005; Marten-DiBartolo & Shaffer, 2002). Thus, research suggests that sport *can* play a role in the promotion of positive mental health. However, given the previous discussion about the challenges and painful experiences that many women endure in sport, it is imperative to find ways to make involvement in sport more positive.

The majority of research on psychological well-being and sport or structured physical activity, has focused on *hedonic* forms of well-being – that is, conceptualizing well-being as enjoyment, happiness, and experiencing pleasure (e.g., Fuzhong et al., 2001; Long & Van Stavel, 1995; Penedo & Dahn, 2005; Stubbe, de Moor, Boomsma, & de Geus, 2007; Yeung & Hemsley, 1997; Zuosong & Liu, 2006). Hedonic well-being is often considered synonymous with

subjective well-being, and consists of three main components: the presence of positive affect, the absence of negative affect, and satisfaction with one's life (Diener, Suh, Lucas, & Smith, 1999). Furthermore, a prominent characteristic of hedonic well-being is that it can be a passive condition and is not necessarily associated with the pursuit and achievement of important goals and purposes (Chatzisarantis & Hagger, 2007). An alternative form of positive psychological well-being is *eudaimonic* well-being, which Aristotle first wrote about in his *Nicomachian Ethics* as reflecting optimal psychological functioning and development (Ryan & Deci, 2001; Ryff, 1989, 1995). That is, eudaimonic well-being reflects psychological flourishing at one's highest potential. Although there is no consensus as to exactly what it is or how it should be measured, eudaimonic well-being differs from happiness, pleasure, or enjoyment, with the main themes of eudaimonia revolving around ideas of flourishing, human potential, and purpose in life (Kimiecik, 2011). Generally speaking, eudaimonically-well individuals find life not only enjoyable (stemming from the hedonic tradition of well-being), but also meaningful and worth living. Unlike hedonic well-being, eudaimonic well-being is associated with active pursuits and achievements of goals (Chatzisarantis & Hagger, 2007).

One model of eudaimonia put forth by Carol Ryff (1989, 1995) conceptualizes eudaimonic well-being as a multidimensional construct that consists of six aspects of psychological flourishing: (1) autonomy, (2) environmental mastery, (3) personal growth, (4) positive relations with others, (5) purpose in life, and (6) self-acceptance. Each dimension of eudaimonic well-being can be viewed as articulating a form of life challenge (Edwards et al., 2005). Autonomy refers to self-determination, independence, non-reliance of others, and the ability to resist social pressures. Having an internal locus of evaluation is also part of autonomy, whereby one does not look to others for approval, but evaluates oneself by personal standards. Environmental mastery includes having the ability to choose or create environments that are suitable for oneself, which involves manipulation of, control over, and mastery of one's surrounding environment. Personal growth entails continually developing one's potential and being open to new experiences, as well as seeing oneself as growing, expanding, and improving. Positive relatedness includes having warm, trusting, and quality relationships with others, as well as understanding the give and take of human relationships. Being concerned about the welfare of others and having strong feelings of empathy and affection for all human beings are also reflective of positive relatedness. Purpose in life refers to having goals, intentions, and a sense

of directedness in life. This also includes feeling that there is meaning to present and past life, and living one's life purposefully. Self-acceptance entails having a positive attitude toward oneself, as well as acknowledging and accepting multiple aspects of oneself including good and bad qualities. According to Ryff, these six dimensions define what it means to be eudaimonically-well, and therefore flourishing at one's highest potential.

Despite largely being ignored in contemporary sport research (Chatzisarantis & Hagger, 2007), eudaimonic well-being appears to be highly relevant to sport, as Ryff's (1989, 1995) dimensions of eudaimonia share similarities with many of the goals and motives for engaging in sport. Women have reported a variety of reasons for engaging in sport, including autonomy, challenge, competence, creativity, relatedness, skill development, stress management, and task mastery (Frederick & Ryan, 1993; Kilpatrick, Hebert, & Bartholomew, 2005), which are comparable to Ryff's dimensions of eudaimonia. In addition to the motives for sport sharing similar elements with eudaimonia, the goals that women try to achieve through sport also reflect the dimensions of eudaimonia. Research by Chatzisarantis and Hagger (2007) suggests that individuals strive to achieve different goals and life aspirations by participating in sport, with some goals including intrinsic aspirations such as meaningful relationships and growth. With previous research suggesting that many of the motivations for and goals achieved through participating in sport share similarities with the dimensions of eudaimonia, much of what women strive to achieve in sport reflects the essence of eudaimonic well-being.

1.4 Self-Compassion and Psychological Flourishing

It is important for research to identify ways in which sport can provide opportunities for healthy development and promote positive well-being. Self-compassion may be a potential resource for young women when dealing with challenging and difficult experiences they face in sport. Although previous research has shown that self-compassion is related to various psychological strengths (e.g., competence, exploration, life satisfaction, social connectedness; Neff, 2003a; Neff, Kirkpatrick, et al., 2007), to the best of my knowledge, no research has explored the role of self-compassion in eudaimonic well-being.

Intuitive connections can be made between self-compassion and eudaimonic well-being. As part of Ryff's model of eudaimonic well-being, internal behaviour regulation and control over one's activities are needed in order to flourish. When athletes experience suffering or painful experiences, their autonomy and mastery might be jeopardized if they do not feel in control of

their environments. Self-kindness, the aspect of self-compassion that entails being warm and understanding towards the self, would offer soothing and nurturing self-love that athletes might need to remain internally driven and not lose sight of managing their contexts, despite their hardships. Acknowledging weaknesses and inadequacies with self-kindness might also facilitate growth and directedness (Breines & Chen, 2012), as athletes would accept their realities – imperfections and all – with loving kindness rather than harsh criticism that might obstruct striving towards one's potential. As discussed by Leary, Tate, Adams, Batts Allen, and Hancock (2007), individuals high in self-compassion accurately see their weaknesses and shortcomings, yet are able to react or respond appropriately as they are not hard on themselves following negative life events. Moreover, by offering kindness towards the self even when weaknesses and failures are acknowledged, self-kindness simultaneously promotes non-judgmental acceptance of the self and personal growth as athletes are likely to accept areas that are in need of improvement. Research by Breines and Chen (2012) supports this interpretation, as they found that treating oneself with compassion after making a mistake or identifying a personal weakness increases self-improvement motivation.

A natural connection can be made between the common humanity component of self-compassion (Neff, 2003a, 2003b) and positive relatedness in eudaimonic well-being (Ryff, 1989, 1995). Recognizing our shared human connection and realizing that others experience a variety of hardships might facilitate the development of positive relations with others. Acknowledging shared experiences and understanding our interconnectedness would allow for warm, open, close, and trusting relationship to develop. Indeed, research by Neff, Kirkpatrick, et al. (2007) included findings that individuals with self-compassion are less disconnected from others, as evidenced by their tendency to use less isolating language. Realizing that, like themselves, other athletes are also imperfect might therefore allow athletes to be more empathetic and thus understand the give and take of quality human relations. The perspective granted by common humanity might also have an influence on athletes' purpose in life and self-acceptance. Gilbert and Irons (2005) have argued that self-compassion activates the self-soothing system, which helps to reduce feelings of fear and isolation. Therefore, recognizing that painful challenges and personal failures are part of being human should provide athletes with a sense of interconnectedness and camaraderie that allows them to continue working towards their goals, rather than feeling isolated and cut off from the rest of the world. When encountering a personal

weakness, athletes who acknowledge that others are also imperfect are unlikely to feel separated from others and therefore might be more likely to accept themselves. Acknowledging that others' lives are also imperfect might allow athletes to more readily accept their own imperfections.

Mindfulness, a nonjudgmental mind-state in which thoughts and feelings are held in balanced awareness (Neff, 2003a, 2003b), nicely connects with Ryff's (1989, 1995) purpose in life, personal growth, and self-acceptance dimensions of eudaimonia. The mental space that is afforded by taking a mindful approach to one's experiences can provide the clarity and perspective that is needed to realize one's potential. Leary et al. (2007) found that the psychological distance granted by mindfulness can temper reactions to negative events. Once athletes acknowledge areas of weakness with mindful awareness, this self-knowledge can be used for identifying areas in need of improvement and providing direction in life. A variety of mindfulness-based therapies have been developed to teach individuals to take notice of the difficult thoughts and emotions that they encounter, so that they can be experienced with kindness and acceptance (e.g., Neff & Germer, 2013; Shapiro, Astin, Bishop, & Cordova, 2005). Results of these programs have included reduced stress, depression, and other forms of mental suffering (Neff, 2012). In contrast to mindfulness, over-identifying with or exaggerating one's thoughts and feelings can narrow one's focus, which might obstruct athletes' psychological growth. The nonjudgmental aspect of mindfulness also offers acceptance of one's thoughts, feelings, and experiences. Research by Kim, Chiu, and Zou (2010) showed that distorted or inaccurate self-views can be a psychological liability. Specifically, they found that inaccurate self-views are linked to poor future performance, self-handicapping, self-doubt, and diminished well-being (i.e., lower life satisfaction, greater stress and anxiety). In contrast to misperceptions being shown to undermine achievement and well-being, the mindful and nonjudgmental awareness afforded by self-compassion might provide accurate self-views that are approached with loving kindness, ultimately promoting genuine self-acceptance.

When exploring the relationship between self-compassion and eudaimonic well-being, it might also be prudent to begin considering other constructs that might further our understanding of this relationship. One construct of interest is passivity. A point that is commonly discussed in the self-compassion literature is whether self-compassion might lead to passivity (Neff, 2003b, 2009; Neff, Kirkpatrick, et al., 2007), which would counter the deliberate actions that must be

taken in order to be eudaimonically-well (Ryff & Singer, 2008). If being self-compassionate promotes inaction, this would be detrimental to the achievement of many sport-related goals for women, not to mention the fulfillment of their potential. Although self-compassion requires being nonjudgmental and not criticizing oneself for shortcomings, it does not mean that one's feelings go unnoticed (Neff, 2003b). According to Neff (2003b), it is actually a lack of self-compassion that is likely to lead to passivity. When individuals are not acting self-compassionately they are likely judging themselves, in which case protective functions of the ego screen inadequacies from self-awareness so that one's self-worth is not threatened. Without self-awareness, areas of weakness remain unnoticed and unchallenged, leading to passivity. In contrast, Neff explains that the care and emotional safety that is intrinsic to compassion means that failures and inadequacies are recognized (without self-condemnation) and managed with kindness and acceptance. Self-compassion provides individuals with nurturing reassurance that regardless of the outcome of their attempts to overcome challenges or improve on a personal weakness, they will not face harsh judgmental criticism (Neff, 2012). Consequently, there is no need to be passive as self-compassionate individuals are motivated to learn and grow for intrinsic reasons (Neff, 2009). Thus, even when failures or struggles are encountered, having self-compassion can be a powerful force for personal growth and change (Neff, 2003b, 2009; Neff & Vonk, 2009). Self-compassion has been positively related to emotion-focused coping and negatively related to avoidance-oriented coping, suggesting that self-compassion includes a mindset of confronting negative outcomes rather than avoiding them (Neff et al., 2005). Individuals with high self-compassion have also reported less motivation anxiety and procrastination tendencies than those with low or moderate self-compassion (Williams, Stark, & Foster, 2008).

Other constructs of interest that might be relevant to our understanding of the relationship between self-compassion and eudaimonic well-being are responsibility, initiative, and self-determination. Self-compassionate individuals not only have more clarity about their experiences, but also greater ability to repair negative emotional states (Neely, Schallert, Mohammed, Roberts, & Chen 2009; Neff et al., 2005). Realizing that the outcomes of their choices would be met with self-kindness, and being motivated by self-kindness to begin with (Neff, 2003a, 2003b, 2009), self-compassionate individuals might feel better equipped to take control of their experiences. In support of this idea, Leary et al. (2007) found that self-

compassionate individuals take more responsibility for their role in negative life events. When exploring women exercisers' body self-compassion, Berry, Kowalski, Ferguson, and McHugh (2010) found that acting compassionately toward the physical self included taking responsibility for one's physical and psychological well-being (e.g., taking responsibility for unhealthy behaviors and accepting responsibility to change these behaviors). Self-responsibility is also crucial to reaching human potential and being eudaimonically-well (Ryff & Singer, 2008).

Self-compassion has been associated with the psychological processes of taking initiative and being intrinsically motivated (Magnus et al., 2010; Neff, Rude, & Kirkpatrick, 2007). Breines and Chen (2012) showed that treating oneself with compassion after making a mistake or identifying a personal weakness increases self-improvement motivation. Breines and Chen (2012) concluded that the accurate self-appraisal afforded by self-compassion might be especially useful to motivate changes that emanate from the self. By accepting one's personal failures and inadequacies with nurturing kindness, athletes might be more motivated to improve themselves and flourish. This conclusion reflects Neff's (2009) position that self-compassionate individuals want to engage in behaviours and actions to better themselves precisely because they care about themselves and are motivated from within rather than by external social standards. Being self-compassionate enables individuals to acknowledge areas of weakness that need changing in order to be actively involved in pursuing a more productive and fulfilling life (Neff, Rude, et al., 2007). Self-determination also plays an important role in eudaimonic well-being, because self-determination is needed in order to reach one's potential (Ryff & Singer, 2008). When individuals pursue goals that reflect intrinsic motivations aimed at personal growth, they tend to report higher levels of well-being than when they pursue goals with extrinsic motives (Robitschek & Keyes, 2009).

1.5 Statement of Purpose

Although an intuitive connection can be made between self-compassion and eudaimonic well-being, research has yet to examine this relationship. Given emerging evidence for the usefulness of self-compassion for young women athletes (Mosewich, Crocker, Kowalski, & DeLongis, 2013; Mosewich et al., 2011) and the importance of identifying ways to make sport more positive (Fraser et al., 2005), research is needed to explore self-compassion as a resource to help young women athletes reach their potential. Therefore, the purpose of my dissertation was to explore the role of self-compassion in young women athletes' psychological flourishing. Two

studies were conducted. Study 1 had a mixed methods design that first quantitatively examined the relationship and possible processes involved between self-compassion and eudaimonic well-being, followed by qualitatively exploring *when* and *how* self-compassion might be useful in young women athletes' psychological flourishing. Study 2 quantitatively examined the sport-contextualized relationship and possible processes involved between self-compassion and eudaimonic well-being during emotionally difficult sport experiences. A hypothetical scenario-based approach was used in Study 2 to better contextualize self-compassion and eudaimonic well-being to young women athletes' sport experiences.

Chapter 2; Study 1: A Mixed Methods Exploration of Self-Compassion and Eudaimonic Well-Being in Young Women Athletes¹

¹ Chapter 2 is a version of an article that has been accepted for publication in the Journal of Sport & Exercise Psychology. The citation is as follows: Ferguson, L. J., Kowalski, K. C., Mack, D. E., & Sabiston, C. M. (accepted). Exploring self-compassion and eudaimonic well-being in young women athletes. *Journal of Sport & Exercise Psychology*.

2.1 Abstract

Self-compassion – treating oneself with kindness and understanding in the face of pain and failure (Neff, 2003a) – is recognized as a way to foster a healthy attitude toward the self and is emerging as a potential resource to transform young women athletes' difficult experiences in sport (Mosewich et al., 2011). Although associated with a variety of well-being indices, self-compassion has largely been neglected in the eudaimonic tradition that reflects psychological flourishing at one's maximal potential (Ryff, 1989, 1995). Using a mixed methods research design, self-compassion and eudaimonic well-being were explored in young women athletes. In a quantitative phase ($n = 83$), self-compassion was positively related to eudaimonic well-being ($r = .76, p < .01$). A path model was explored, with self-compassion, passivity, responsibility, initiative, and self-determination accounting for 83% of the variance in eudaimonic well-being. A qualitative phase ($n = 11$) then explored when and how self-compassion might be useful in striving to reach one's potential in sport. Self-compassion was described as advantageous in difficult sport situations by increasing positivity, perseverance, and responsibility, as well as decreasing rumination. Findings speak to the potential protective and reparative functions of self-compassion, and further support self-compassion as beneficial during emotionally difficult situations (Leary et al., 2007; Neff, 2003b). However, apprehensions about fully embracing a self-compassionate mindset in sport warrant additional research to explore the seemingly paradoxical role of self-compassion in young women athletes' eudaimonic well-being.

2.2 Introduction

Young women have reported a variety of goals and motives for competing in sport, such as autonomy, skill development, expression of creativity, fostering meaningful relationships, and continued growth and development (Chatzisarantis & Hagger, 2007; Kilpatrick et al., 2005). These goals and motives are reflective of optimal psychological functioning and development consistent with Carol Ryff's (1989, 1995) model of eudaimonic well-being, which identifies what it means to psychologically flourish at one's maximum potential (i.e., to be autonomous, have mastery over one's environment, continued feelings of growth and development, positive and quality relationships with others, purpose and meaning in life, and acceptance of oneself). However, it is important to recognize that reaching one's potential in sport is not a given, as young women can face many challenges in their sport experiences (Fraser-Thomas et al., 2005).

Sport environments may be highly appraisal-focused, including self-evaluations, evaluations by others, and social comparisons (Krane et al., 2001; Mosewich et al., 2009). In part resulting from this environment of evaluation, sport involvement has been linked to negative physical outcomes and unhealthy behaviors such as disordered eating, obsessive concerns over body weight, excessive exercising, and training through injuries (Anshel, 2004; Beals & Manore, 1994; Krane et al., 2001). Given the particularly difficult experiences and subsequent maladaptive outcomes that can arise in sport (Fraser-Thomas et al., 2005), young women might benefit from extending kindness and caring toward the self. One potential resource for young women to deal with their challenging sport experiences is self-compassion, which requires an emotionally positive, understanding, and nonjudgmental self-attitude.

As outlined by Kristin Neff (2003a, 2003b, 2004, 2009), self-compassion consists of self-kindness, common humanity, and mindfulness, which mutually interact to create a self-compassionate frame of mind. Self-compassion is particularly relevant when one fails or feels inadequate and can be an important tool for dealing with challenging or difficult times (Neff, 2003a, 2003b, 2009; Neff & Vonk, 2009). Thus, self-compassion should be useful for young women athletes due to the potential for negative physical, emotional, psychological, and social outcomes in sport (Fraser-Thomas et al., 2005).

Self-compassion may serve as a potential resource for young women athletes because it presents a healthy way of relating to the self that is not dependent upon positive self-evaluations (Neff & Vonk, 2009). Treating oneself with compassion involves accepting all aspects of one's

experiences, regardless of how painful or difficult they may be (Leary et al., 2007; Neff, Kirkpatrick, et al., 2007; Neff & Vonk, 2009). Although self-compassionate individuals evaluate the positive or negative quality of their actions and experiences, they do so with a compassionate understanding of the complex and dynamic factors that impact their actions (Leary et al., 2007). As such, the self is not valued according to the outcome of the evaluations involved when acting self-compassionately (Leary et al., 2007; Neff, Kirkpatrick, et al., 2007).

There is a growing body of literature suggesting that self-compassion might act as a buffer against outcomes that rely on self-evaluations and social comparisons. To that end, Mosewich and colleagues have made strides in the area of self-compassion in sport (e.g., Mosewich, Crocker, Kowalski, & DeLongis, 2013; Mosewich et al., 2011). Recently, Mosewich, Crocker, Kowalski, and DeLongis (2013) developed a 7-day self-compassion in sport intervention that focused on processing negative events in sport with a self-compassionate mindset. Through psychoeducation and writing modules, the intervention resulted in increased self-compassion and decreased self-criticism, rumination, and concern over mistakes among highly self-critical women athletes. Although these findings attest to the benefit of self-compassion for young women athletes on markers more aligned with ill-being, research has yet to explore whether treating oneself with compassion supports or thwarts striving for human potential.

Self-compassion has been linked with a range of psychological health indices that reflect hedonic forms of well-being characterized by subjective happiness and pleasure (Diener et al., 1999; Ryan & Deci, 2001; Ryff, 1989), including less anxiety and depression, as well as greater feelings of optimism, happiness, positive affect, and life satisfaction (Neff, 2003a; Neff, Rude, et al., 2007). However, self-compassion has largely been overlooked within the eudaimonic tradition whereby well-being is explicitly concerned with individuals' development and self-realization (Ryan, Huta, & Deci, 2008). Given that treating oneself with compassion has potential to contribute to positive well-being (Neff, 2003b), it is important to consider the relationship between self-compassion and forms of well-being that represent flourishing and optimal development as opposed to those grounded in the hedonic tradition.

There are both theoretical and empirical supports for the plausible relationship between self-compassion and eudaimonic well-being. Theoretically, acting self-compassionately gives rise to proactive behaviors aimed at promoting or maintaining well-being (Neff, 2003b).

Treating oneself with self-compassion allows for clarity of one's limitations and the recognition of unhealthy behaviors, which enables action for growth and encourages change to improve well-being (Berry et al., 2010); hence, self-compassion may be a viable resource for achieving human potential. In addition, some researchers have found self-compassion to be positively related to indices of psychological strength (e.g., competence, exploration; Neff et al., 2005; Neff, Rude, et al., 2007), which share similarities to dimensions of eudaimonic well-being advanced by Ryff (1989, 1995; e.g., exploration and personal growth). As a resource that encourages kindness and caring towards the self and promotes psychological well-being, self-compassion might be particularly useful for young women athletes due to the difficult, challenging, and evaluative experiences routinely presented in sport environments that might jeopardize participation and flourishing in sport. Research is needed to explore self-compassion and eudaimonic well-being with young women athletes to gain insight into the potential usefulness of self-compassion as a tool towards their positive development. Despite theoretical rationale and empirical evidence, no researchers have explored the self-compassion and eudaimonic well-being relationship with young women athletes.² Given this limited understanding, a mixed methods design was employed to explore the role of self-compassion in eudaimonic well-being for young women athletes.

By combining the strengths of quantitative and qualitative strategies of inquiry, mixed methods research designs are a practical way to explore complex research questions (Creswell, 2014; Heyvaert, Maes, & Onghena, 2013). Mixed methods designs allow for both deductive examinations of hypotheses as well as inductive discovery of patterns (Johnson & Onwuegbuzie, 2004), which was seen as appropriate and beneficial for exploring two areas of research that, independently, are well-developed but required a level of exploration to bring them together. Moreover, mixed methods designs can provide stronger conclusions by identifying points of convergence among findings, while embracing points of departure that might otherwise be missed when only a single method is used (Johnson & Onwuegbuzie, 2004).

² To the best of my knowledge, only three studies have considered the self-compassion–eudaimonic well-being relationship in some form. Akin (2008) looked at the relationship in undergraduates with Turkish measures; Neely et al. (2009) examined the relationship between self-compassion and one component of eudaimonic well-being (i.e., purpose in life); and Hollis-Walker and Colosimo (2011) tested self-compassion as a mediator in the relationship between mindfulness and eudaimonic well-being.

2.3 Quantitative Phase

The purpose of the quantitative phase was twofold. First, the relationship between self-compassion and eudaimonic well-being in young women athletes was explored. Second, based on theoretical and empirical evidence, path models were explored with passivity, responsibility, initiative, and self-determination considered as potential processes in the self-compassion–eudaimonic well-being relationship. Given the aforementioned theoretical and empirical support, it was hypothesized that (1) there would be a positive relationship between self-compassion and eudaimonic well-being, such that young women with higher self-compassion would have higher eudaimonic well-being; (2a) both self-compassion and eudaimonic well-being would be negatively related to passivity, and positively related to responsibility, initiative, and self-determination; and (2b) the data would be consistent with a model of multiple mediation suggesting that passivity, responsibility, initiative, and self-determination mediate the relationship between self-compassion and eudaimonic well-being.

2.3.1 Method.

2.3.1.1 Participants and procedure.

Following institutional ethical approval (see Appendix A) as well as school board approval (see Appendix B), university and high school classes were visited to invite women athletes between the ages of 16 and 25 to participate. Participants were 83 young women athletes representing 21 different sports (e.g., basketball, track and field, wrestling), ranging from local (50% of participants) to international (3% of participants) competition levels. The range of competitive level is reflective of other research with competitive athletes (e.g., Bartholomew, Ntoumanis, Ryan, Thøgersen-Ntoumani, 2011; Mosewich et al., 2011). The majority of participants (59%) in the quantitative phase reported participating in sport between 1 and 4 times in the previous week. Mean age of participants was 18.70 years ($SD = 2.14$ years), mean height was 167.03 cm ($SD = 7.38$ cm), and mean weight was 62.16 kg ($SD = 10.48$ kg). The majority of participants self-identified as Caucasian (92.77%) and single (95.18%). Participants were emailed a secure link to an online web-based survey that contained the questionnaire package, which included informed consent (see Appendix C) and a demographics questionnaire (see Appendix D).

2.3.1.2 Measures.

Self-compassion. Self-compassion was measured by the 26-item Self-Compassion Scale (SCS; Neff, 2003a; see Appendix E), which is a five-point scale ranging from 1 (almost never) to 5 (almost always). Six subscales measure the three main components of self-compassion, which taken together represent the overall level of self-compassion: self-judgment (five items; e.g., *“I’m disapproving and judgmental about my own flaws and inadequacies”*), self-kindness (five items; e.g., *“I try to be understanding and patient toward aspects of my personality I don’t like”*), isolation (four items; e.g., *“When I think about my inadequacies it tends to make me feel more separate and cut off from the rest of the world”*), common humanity (four items; e.g., *“I try to see my failings as part of the human condition”*), over-identification (four items; e.g., *“When I’m feeling down I tend to obsess and fixate on everything that’s wrong”*), and mindfulness (four items; e.g., *“When something painful happens I try to take a balanced view of the situation”*). Items from negatively phrased subscales were reverse scored before computing a total mean. Past research has shown that SCS scores demonstrate internal consistency reliability, discriminant validity, and concurrent validity in university student samples (Leary et al., 2007; Neff, 2003a; Neff et al., 2005). The SCS has also been shown to be reliable for use with adolescents (Neff & McGeehee, 2010) and sport samples (Mosewich et al., 2011).

Eudaimonic well-being. The Scales of Psychological Well-Being (SPWB; Ryff & Keyes, 1995; see Appendix F) is an 84-item, six-point scale ranging from 1 (strongly disagree) to 6 (strongly agree). The scale consists of six 14-item subscales assessing autonomy (e.g., *“Being happy with myself is more important to me than having others approve of me”*), environmental mastery (e.g., *“I am good at juggling my time so that I can fit everything in that needs to get done”*), personal growth (e.g., *“With time, I have gained a lot of insight about life that has made me a stronger, more capable person”*), positive relatedness (e.g., *“My friends and I sympathize with each other’s problems”*), purpose in life (e.g., *“I am an active person in carrying out the plans I set for myself”*), and self-acceptance (e.g., *“For the most part, I am proud of who I am and the life I lead”*). After reverse scoring negatively phrased items, a single composite score was calculated by taking the mean across all subscales. Past research has shown that the SPWB scores demonstrate internal consistency reliability, factorial validity, convergent validity, and discriminant validity (Nave, Sherman, & Funder, 2007; Ryff, 1989; Ryff & Keyes, 1995). The scale has demonstrated broad applicability in terms of use with samples of various ages (e.g.,

young, middle-aged, and older adults; undergraduate students; Nave et al., 2007; Ryff, 1989), as well as an athlete sample (Edwards & Steyn, 2008).

Passivity. The Cognitive-Behavioral Avoidance Scale (CBAS; Ottenbreit & Dobson, 2004; see Appendix G) measured passivity, as “avoidance is generally a passive strategy whereby a person fails to invoke a course of action in which the problem is dealt with directly” (Ottenbriet & Dobson, 2004, p. 308). Thirty-one items assessed four factors on a five-point scale ranging from 1 (not at all true for me) to 5 (extremely true for me); behavioral-social (e.g., “*I do not answer the phone in case people are calling with social invitations*”), behavioral-nonsocial (e.g., “*Rather than try new activities, I tend to stick with the things I know*”), cognitive-social (e.g., “*I fail to discuss/address tension that builds in a friendship*”), cognitive-nonsocial (e.g., “*I distract myself when I start to think about my work/school performance*”). After reverse scoring negatively phrased items, a composite was calculated by taking the mean across the four factors, which has demonstrated internal consistency reliability ($\alpha = .91$; Ottenbreit & Dobson, 2004). The scale has been associated with other measures of avoidance (e.g., Coping Responses Inventory) as well as with higher levels of depression and anxiety (Ottenbreit & Dobson, 2004).

Responsibility. The Personal Responsibility Questionnaire (PRQ; Mergler, Spencer, & Patton, 2007; see Appendix H) is a 30-item, four-point scale ranging from 1 (strongly disagree) to 4 (strongly agree). The PRQ consists of two factors: responsible control of behavior (e.g., “*If someone is mean to me it is not my fault if I am mean to them*”), and responsible control of emotions and thoughts (e.g., “*To make a good decision it is important to think it through first*”). After reverse scoring negatively phrased items, a composite score was computed by summing all responses, with higher scores indicating higher personal responsibility. Scores on the PRQ factors have demonstrated evidence of reliability ($\alpha = .77$ to $.82$) and are associated with greater emotional intelligence and self-esteem (Mergler et al., 2007).

Initiative. The Personal Growth Initiative Scale (PGIS; Robitschek, 1998; see Appendix I) is a nine-item, six-point scale ranging from 1 (definitely disagree) to 6 (definitely agree) that measures intentional involvement in changing and developing as a person (e.g., “*I take charge of my life*”). Responses to scale items were summed, with higher scores indicative of higher levels of initiative. Internal consistency estimates have ranged from $.78$ to $.90$ (Robitschek, 1998, 1999; Robitschek & Keyes, 2009). The PGIS has been positively correlated with

instrumentality, internal locus of control, and negatively correlated with chance locus of control (Robitshchek, 1998, 1999; Robitschek & Keyes, 2009).

Self-determination. The Self-Determination Scale (SDS; Sheldon & Deci, 1996; see Appendix J) is a 10-item measure that assesses the extent to which individuals tend to function in a self-determined way. The scale consists of two subscales: Awareness of Oneself, which reflects being aware of one's feelings and sense of self (five items; e.g., "*When I accomplish something, I always feel it's me who did it*"), and Perceived Choice in one's Actions, which reflects a sense of choice with respect to behavior (five items; e.g., "*I do what I do because it interests me*"). For each scale item, participants indicate which of two statements feels most true of them on a five-point scale ranging from 1 (only A feels true) to 5 (only B feels true). Negatively phrased items were reverse scored and a composite score was computed by summing all scale items, which has demonstrated internal consistency ranging from .86 to .92 (Sheldon, 1995). The SDS has been associated with self-actualization, life satisfaction, creativity, and resistance to peer pressure (Grow, Sheldon, & Ryan, 1994; Sheldon, 1995; Sheldon & Deci, 1996).

2.3.1.3 Data analysis.

Prior to interpreting data analyses, normality of the data was assessed by examining histograms of the standardized residuals. Linearity and homoscedasticity were examined through scatterplots of the residuals. Statistical significance was set at $p < .05$ for all analyses.

Pearson bivariate correlations were used to examine the relationship between self-compassion and eudaimonic well-being (Hypothesis 1), as well as to explore the associations between self-compassion, eudaimonic well-being, and the hypothesized mechanism variables (i.e., passivity, responsibility, initiative, and self-determination; Hypothesis 2a).

Preacher and Hayes' (2008) SPSS macro was used to explore the indirect paths in the relationship between self-compassion and eudaimonic well-being (Hypothesis 2b).³ The macro

³ Multiple mediation was the appropriate analytic strategy because it is convenient, precise, and parsimonious to include all potential process variables in the same model. As discussed by Preacher and Hayes (2008), testing a single multiple mediation model is preferred over separate simple mediation models for several reasons. First, given that the proposed mediators were moderately to strongly associated with one another, they should not be treated as separate individual mediators. Second, testing the total indirect effect of X on Y is analogous to running a regression analysis with several predictors; and if an effect is found it can be concluded that the variables mediate the relationship. Third, examining a multiple mediation model makes it possible to determine to what extent specific mechanisms mediate the relationship, conditional on the presence of the other mediators in the model. It is important to consider the role of each variable within the context of additional proposed mediators, as in most situations it is unlikely that an X–Y relationship is transmitted by only one variable. Fourth, considering multiple

tested the indirect effects of self-compassion on eudaimonic well-being through multiple mediators (i.e., passivity, responsibility, initiative, and self-determination). The analysis involved two parts: (1) exploring the total indirect effect (i.e., whether the set of mediators accounts for the relationship between self-compassion and eudaimonic well-being); and (2) exploring specific indirect effects in the context of a multiple mediator model (i.e., specific indirect effects of each proposed mediator and pairwise contrasts of specific indirect effects). Thus, the analysis included specific indirect effects of each mechanism variable (e.g., passivity) above and beyond the other mechanism variables (e.g., self-determination) in the model. For the analysis, 5000 bootstrap samples with replacement were requested. Significance tests for each of the mediated effects of self-compassion on eudaimonic well-being were provided by 95% bias-corrected (BC) bootstrapped confidence intervals (CIs). The macros also provide regression coefficients for the normal theory approach.

2.3.2 Results.

2.3.2.1 Missing data and evaluation of assumptions.

Prior to statistical analysis, participants with one (20 participants) or two (four participants) missing data points (a total of 0.14% of the data) that were not from the same subscale were retained and within-person mean substitution was used to estimate the missing value (Tabachnick & Fidell, 2007). No outliers were identified in the data set. Only scores from the SCS were normally distributed; hence, non-parametric distributions were normalized using appropriate data transformations (Tabachnick & Fidell, 2007). Data transformations did not substantially change the results of hypothesis testing. Therefore, all results are reported with original data.

2.3.2.2 Descriptive statistics, scale reliabilities, and correlations.

Descriptive statistics and internal consistency scale reliabilities are reported in Table 2.1.

2.3.2.3 Hypothesis testing.

Correlations. In support of Hypothesis 1, self-compassion and eudaimonic well-being were positively correlated ($r = .76, p < .01$). As was predicted in Hypothesis 2a, both self-compassion and eudaimonic well-being were negatively related to passivity, and positively

mediators simultaneously decreases the likelihood of the omitted variable problem that can lead to biased parameter estimates when using multiple simple mediation models. Fifth, including multiple mediators in the model allows for competing ideas or theories to be pitted against each other within a single model.

Table 2.1: Study 1 descriptive statistics and scale reliabilities in the quantitative phase for self-compassion, eudaimonic well-being, passivity, responsibility, initiative, and self-determination

Variable (Measure)	Range	Mean	SD	Reliability α
Self-compassion (SCS)	1.77-4.77	3.29	0.66	.85
Eudaimonic well-being (SPWB)	2.75-5.77	4.77	0.63	.89
Passivity (CBAS)	1.06-3.26	1.69	0.48	.81
Responsibility (PRQ)	71.00-115.00	96.91	9.75	.87
Initiative (PGIS)	22.00-54.00	40.79	6.78	.87
Self-determination (SDS)	21.00-50.00	39.82	6.06	.77

Note. SCS = Self-Compassion Scale. SPWB = Scales of Psychological Well-Being. CBAS = Cognitive-Behavioral Avoidance Scale. PRQ = Personal Responsibility Questionnaire. PGIS = Personal Growth Initiative Scale. SDS = Self-Determination Scale.

related to responsibility, initiative, and self-determination. Correlations among all variables are presented in Table 2.2.

Path model analysis. Figure 2.1 illustrates the full path model and includes the unstandardized coefficients for all paths in the model.

The proposed model explained 83% of the variance in eudaimonic well-being. The total (path c) and the direct effects (path c') of self-compassion on eudaimonic well-being were $B = 0.72, p < .001$, and $B = 0.35, p < .01$, respectively. The difference between the total and direct effect or the total indirect effect of self-compassion on eudaimonic well-being through the four mechanism variables had a point estimate of 0.37 with a 95% BC bootstrapped CI of 0.23 to 0.53 (i.e., the difference between the total and the direct effect of self-compassion on eudaimonic well-being was different from zero). Therefore, the data were consistent with a model of multiple mediation whereby, as a set, passivity, responsibility, initiative, and self-determination mediated the self-compassion–eudaimonic well-being relationship (as indicated by the total indirect effect for the model). The only specific indirect effects (paths $a \times b$) were through passivity ($0.11, p < .01$) and initiative ($0.10, p < .01$).⁴ In addition, the 95% BC CIs obtained for the values of $a \times b$ by bootstrapping did not include zero for these variables. Neither responsibility nor self-determination contributed to the indirect effect above and beyond passivity and initiative. All pairwise contrasts of the hypothesized mediators included zero in the 95% BC bootstrapped CIs; thus, despite finding that two of the specific indirect effects were significant and two were not significant, none of the contrasted specific indirect effects can be distinguished from each other in terms of magnitude. As discussed by Preacher and Hayes (2008), such paradoxes likely occur when one specific indirect effect involved in a contrast is not sufficiently far from zero. A summary of the estimates, standard errors, and 95% BC bootstrapped CIs for the multiple mediation model are reported in Table 2.3.

⁴ Although the significant values reported in Figure 1 might suggest a specific indirect effect through responsibility, the 95% BC CI for this point estimate includes zero. Preacher and Hayes' (2008) SPSS macro used to analyze my proposed path model includes bootstrapping, which does not assume that the sampling distribution of the indirect effect is normal (i.e., the sampling distribution of ab tends to be asymmetric; Hayes, 2009). Bootstrapping generates an empirical representation of the indirect effect by repeatedly resampling a and b with replacement so that a new sample is built from the original sample; ab is then estimated through the resampled data (Hayes, 2009). Thus, a specific indirect effect did not emerge for responsibility via the bootstrapping approach. The benefit of the bootstrapping approach is the resultant protection against Type I error, which is evidenced in that responsibility was a significant mechanism using Baron and Kenny's (1986) normal theory approach, yet did not emerge with a specific indirect effect through the bootstrapping approach.

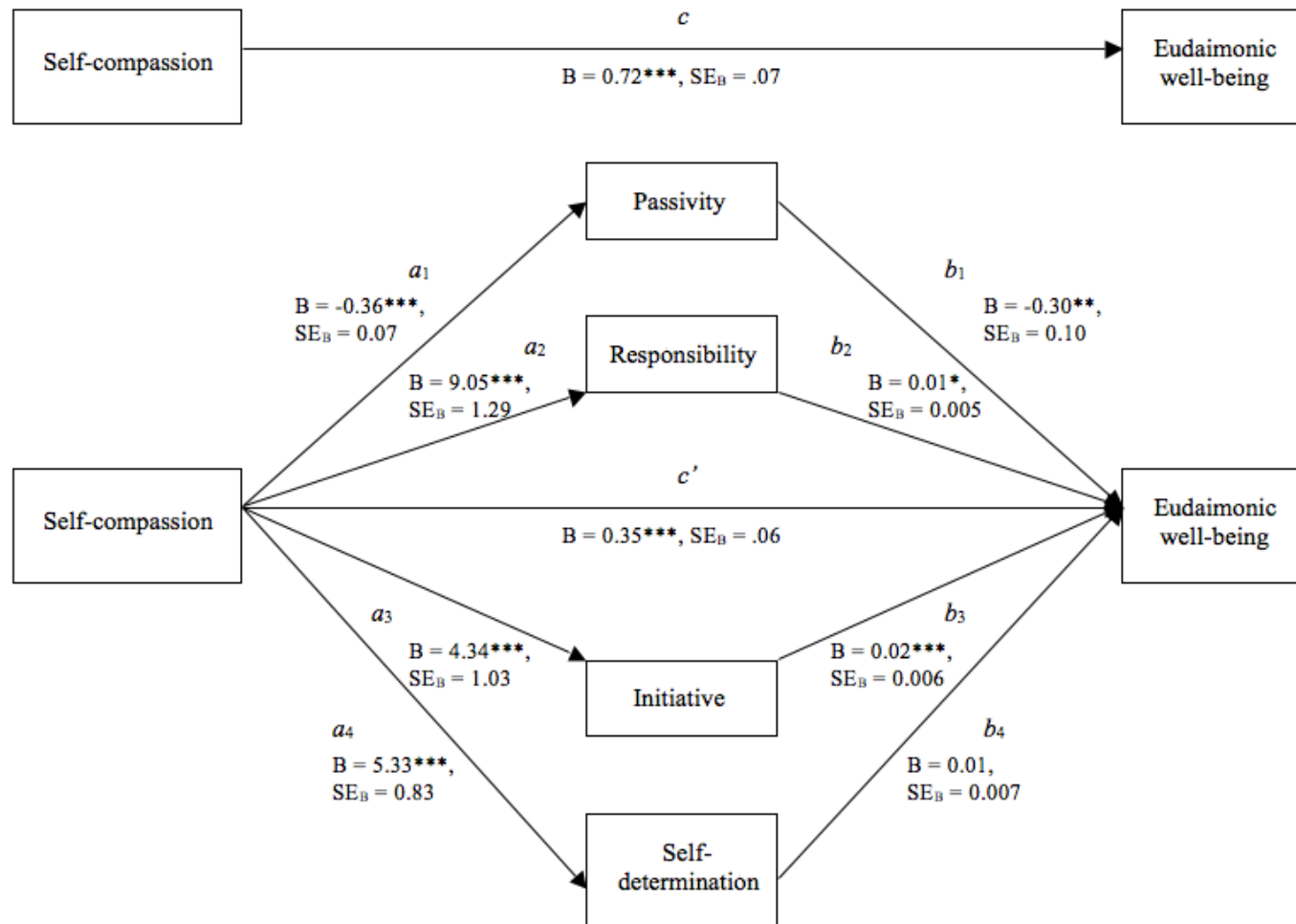
Table 2.2: Study 1 Pearson product moment correlations in the quantitative phase for self-compassion, eudaimonic well-being, passivity, responsibility, initiative, and self-determination

Variable (Measure)	1.	2.	3.	4.	5.
1. Self-compassion (SCS)	---				
2. Eudaimonic well-being (SPWB)	.76**	---			
3. Passivity (CBAS)	-.50**	-.75**	---		
4. Responsibility (PRQ)	.62**	.75**	-.66**	---	
5. Initiative (PGIS)	.42**	.71**	-.67**	.58**	---
6. Self-determination (SDS)	.58**	.71**	-.60**	.64**	.57**

Note. Degrees of freedom = 81. *SCS* = Self-Compassion Scale. *SPWB* = Scales of Psychological Well-Being. *CBAS* = Cognitive-Behavioral Avoidance Scale. *PRQ* = Personal Responsibility Questionnaire. *PGIS* = Personal Growth Initiative Scale. *SDS* = Self-Determination Scale.

** $p < .01$.

Figure 2.1: The path model for multiple mediation of self-compassion on eudaimonic well-being in the quantitative phase of Study 1.



Note. The c coefficient represents the total relationship between self-compassion and eudaimonic well-being. The c' coefficient represents the strength of the association between self-compassion and eudaimonic well-being after controlling for the four mediated paths. The a and b paths represent the mediated or specific indirect paths involving the hypothesized mediators. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2.3: Study 1 summary of the path model analysis in the quantitative phase examining the relationship between self-compassion and eudaimonic well-being through passivity, responsibility, initiative, and self-determination

	Bootstrapping		BC bootstrapped	
	product of coefficients		95% CI ^a	
	Point estimate	SE	Lower	Upper
Indirect Effects				
Passivity	.11	.05	.03	.22
Responsibility	.09	.05	-.004	.18
Initiative	.10	.05	.03	.21
Self-determination	.07	.04	-.003	.16
Total indirect	.37	.07	.23	.53
Contrasts				
Passivity vs. responsibility	.02	.08	-.12	.18
Passivity vs. initiative	.01	.06	-.11	.14
Passivity vs. self-determination	.04	.07	-.08	.17
Responsibility vs. initiative	-.003	.07	-.17	.11
Responsibility vs. self-determination	.02	.06	-.11	.14
Initiative vs. self-determination	.02	.07	-.09	.17
Fit statistics	$R^2 = .83$; $F(5, 77) = 72.77$, $p < .001$			

Note. *SE* = standard error. *BC* = bias corrected. *CI* = confidence interval.

^a5000 bootstrap sample

2.4 Qualitative Phase

The quantitative phase provided evidence for the relevance of and link between self-compassion and eudaimonic well-being in young women athletes. An important step in building upon this trait-level association is contextualizing our understanding of these constructs to the sport domain. Therefore, a qualitative phase was conducted to explore young women athletes' perspectives on *if* and *when* self-compassion might be useful in sport, as well as what role self-compassion might play in psychological flourishing in sport.

To begin to contextualize our understanding of self-compassion and eudaimonic well-being to sport, three objectives guided the qualitative phase. First, given the difficult experiences that young women can face in sport and the support for self-compassion being particularly useful during times of suffering or failure (Neff, 2003a, 2003b; Neff & Vonk, 2009), I explored whether self-compassion is useful in the context of sport, and if so, specifically when self-compassion might be helpful. Second, given the lack of a conceptual model of eudaimonic well-being in sport (Lundqvist, 2011), I explored whether Ryff's (1989) model of eudaimonic well-being is relevant to sport-specific psychological flourishing. Third, to address the potential role of self-compassion in eudaimonic well-being for young women athletes, I explored *how* or *why* self-compassion might contribute to eudaimonic well-being in sport.

2.4.1 Method.

2.4.1.1 Participants.

After obtaining institutional ethical approval (see Appendix K), 11 young women athletes ($M_{\text{age}} = 19.72$, $SD = 2.20$), who had participated in an individual or team competitive sport in the past year, were recruited by means of purposeful (Creswell, 2014; Marshall, 1996) and snowball sampling (Biernacki & Waldorf, 1981). Ten of the athletes self-identified as Caucasian. The participants reported involvement in a variety of sports at differing levels of competition including basketball, hockey, pole vault, power lifting, rugby, softball, and volleyball. The athletes' highest level of competition included two participants at the international level (hockey and power lifting), three at the national level (basketball and pole vaulting), three at the regional level (football, rowing, and soccer), one provincially (softball), and two locally (cross country and fastball). Eight participants reported participating in sport two or more times in the past week.

2.4.1.2 Design and procedure.

Collective case study, which can provide insight into a particular question by studying more than one case (Stake, 1995), was employed as the strategy of inquiry. The athletes represented the case (i.e., a specific, complex, functioning system that has boundaries; Stake, 1995) within the bounded system of their sport experiences. Although collective case study might have more emphasis on representation than other types of case studies, the focus remains particularization, not generalization (Stake, 1995). Thus, the emphasis on sample size and participant selection was to maximize what can be learned and not to understand all other cases.

Data collection consisted of one-on-one semi-structured interviews followed by small focus group discussions ($n = 2$ to 4 per group). After obtaining informed consent (see Appendix L), one-on-one interviews began with the athletes describing personal challenging or difficult times in sport. This was followed by an introduction to the concept of self-compassion, which included presenting a short self-compassion video produced by Kristin Neff (<http://www.self-compassion.org/>). Questions were then asked to explore if and when the participants had ever been self-compassionate in sport (e.g., *“Can you describe a situation in sport, if ever, when you were self-compassionate?”*) as well as addressing whether self-compassion would have been helpful during their previously identified difficult experiences (e.g., *“Could self-compassion have been a tool for you to use when you were confronted with your challenging experiences? How or why/why not?”*). Interviews then shifted to eudaimonic well-being, with the participants asked to share what it means to reach their potential in sport (e.g., *“What thoughts and feelings contribute to achieving your potential in sport?”*) prior to presenting Ryff’s (1989) model of eudaimonia. Ryff’s (1989) model was then outlined, and the athletes were invited to discuss the relevance of each dimension to reaching their potential in sport (e.g., *“Why is this dimension applicable or not applicable to what it means to reach your potential in sport?”*). Participants were provided with reference sheets that defined self-compassion and eudaimonic well-being for the remainder of the interview.

Next, the role of self-compassion in eudaimonic well-being via sport was considered, with the participants asked to consider how self-compassion might help or detract from reaching their potential (e.g., *“What might be the reasons why self-compassion contributes to reaching your potential in sport? What is it about self-compassion that might prevent you from reaching your potential in sport?”*). Variables supported as plausible mechanisms in the quantitative

phase of Study 1, namely passivity, responsibility, initiative, and self-determination, were then introduced and participants were invited to discuss their relevance to self-compassion and reaching their potential in sport (e.g., *“Does acting self-compassionately mean you are likely to be actively engaged in your sport? Why or why not? Discuss the role of taking responsibility in reaching your potential in sport.”*). The interviews were audio-recorded and lasted between 45 to 75 minutes. One pilot interview was conducted to ensure questions were appropriate and clear. The interview guide (see Appendix M) was reviewed by a self-compassion researcher familiar with qualitative research with young women athletes.

Interviews were transcribed verbatim, resulting in 172 pages of single spaced text. Each participant had the opportunity to member check her transcript. To gain an initial general and holistic sense of the text, interviews were read and reread to reflect on their meaning (Creswell, 2014). Following Stake’s (1995) guidelines for analyzing case studies, primary analysis of the interview data included: categorical aggregation of impressions to search for meaning; formation of themes to identify instances of correspondence and important patterns; and, production of naturalistic generalizations (i.e., conclusions arrived at through personal engagement) to make the case understandable. Negative or discrepant information was also located to identify instances that ran counter to emergent themes (Creswell, 2014). All transcripts were reread to ensure that the emergent themes were reflected in the text. Peer debriefing took place to enhance the trustworthiness of the themes and interpretation (Creswell, 2014). Lack of agreement with a critical friend was resolved by visiting the transcripts.

Following primary analysis, the main themes were presented to the athletes during focus groups. The focus groups were intended to member-check proposed themes, allowing participants to confirm/disconfirm the themes and therefore enhance the trustworthiness of the data. Focus groups also provided an avenue for athletes to expand on initial discussions to generate additional insight that might not have emerged in a one-on-one interview setting, as the athletes interacted with one another in the context of a small group setting. Participants were presented with two primary tasks related to each theme: (1) Explain how being self-compassionate in sport might contribute to this theme, and (2) Discuss how this theme might facilitate reaching their potential in sport (see Appendix N for the semi-structured focus group guide). The focus group discussions were audio-recorded and lasted between 40 to 60 minutes.

2.4.1.3 Role of the researcher.

Throughout the interview and focus group process, as well as analysis of the data, I was mindful of my position in the qualitative phase of Study 1. No longer being a competitive dancer, I do not consider myself to personally have a competitive or athletic identity. I recognized that my distance from an athletic mindset brought with it a certain perspective that most surely differed from those of the study participants. However, I viewed my detachment from competitive sport as a unique opportunity to be engaged with the participants in a way that allowed them to paint a picture for me, so to speak, about their personal experiences.

My position in the qualitative phase was primarily as researcher. Having the majority of my research to date exploring self-compassion and eudaimonic well-being, I have a curiosity and vested interest in these constructs. After acknowledging my position, I tried to be sensitive to my personal biography and how it may have shaped data collection and analysis. To that end, I made a concerted effort to being open-minded during all discussions with the athletes, being curious about the experiences that might run counter to my preconceived notions of self-compassion and eudaimonic well-being. I approached each interview as an opportunity to understand each construct in sport, and more specifically within the athletes' sport experiences, more so than try to match the athletes' experiences to my expectations. Following discussions with the athletes, I engaged in post-interview reflections whereby I took notes about the content that was discussed in the interview and initial meanings that were emerging to me. This reflective process was guided by the deliberate attempt to challenge myself to find what might have been unexpected information, given my history of research on self-compassion and eudaimonic well-being. While my interpretation of the cases explored was never void of my own perspectival subjectivity (Havercamp, 2005), I tried to be as open as possible to the athletes' experiences to try and understand self-compassion and psychological flourishing in their personal journeys through sport.

2.4.2 Results.

Discussions with the athletes provided insight into three main questions: (a) Is self-compassion a useful tool in sport? And if so, *when* might self-compassion be helpful? (b) Is Ryff's (1989) model of human potential relevant to sport? (c) *How* or *why* might self-compassion contribute to striving for human potential in sport? Direct quotes are used to provide a rich

description of themes.⁵ All names used are pseudonyms, which were selected by the participants.

2.4.2.1 Self-compassion in sport: A personal resource.

The athletes acknowledged that treating themselves kindly, keeping their painful experiences in balanced awareness, and recognizing their shared human connection could be helpful in a variety of difficult sport experiences. All of the athletes identified failing to meet personal goals or expectations as instances when self-compassion could be a useful tool, such as when they do not place as well as expected in a competition, lose an important game, do not score a certain number of points, or do not set a personal best. On this note, some personal examples provided were “...after you no height at a competition, or you don’t make the team” (Carmen, interview), and “...you get in this slump...maybe you’re striking out the next five games” (Sam, interview).

Almost all of the athletes explained that treating themselves with compassion could be helpful in the immediacy of a competition when they make mistakes during their sport, “...in the moment when you are beating yourself up so bad” (Carmen, interview). For Rebecca, it would be “...in a football game. You drop a pass, or you miss a block” (interview). Carly shared that treating herself with kindness and understanding could have been useful in past mistakes she made in hockey.

Experiencing an injury was another situation identified by many of the athletes. Some of the athletes commented that self-compassion could help them work through an injury with patience and kindness, rather than being overwhelmed with frustration and anger. Moreover, self-compassion could provide them with the objectivity to know when to push themselves and when to take the time needed to rest. As explained by Carly who recalled being self-compassionate at one point during an injury, “Being aware that I wasn’t just gonna magically get better, and that I would have to, you know, treat myself, do physio on it, and just take some time off and relax” (interview). Self-compassion could also help the athletes to focus on what they *can* do as they recover from an injury, and to take note of the progress they make. Similarly, some of the athletes explained that self-compassion could help them during a plateau by

⁵ The direct quotes from participants’ transcripts are referenced as originating from one-on-one interviews (i.e., interview) or focus group discussions (i.e., focus group).

encouraging them to take a step back, realize how hard they are working, and perhaps consider strategies (e.g., modify training, nutrition, sleep habits) to move beyond their plateau:

I definitely think that just realizing that, um, you may be at a plateau and that's okay. And just stepping back and thinking "Okay, I can't get mad at myself. I *am* trying hard". Maybe think about what other issues could be preventing you, or just accepting it and trying to just, um, be proud of yourself even though you may not be getting better and better. (Sarah, interview)

An underlying message in all of the instances identified by the athletes pertains to the benefit of self-compassion as a personal resource, something that is available whenever you need it. As Lise summed up, "*Self*-compassion. That's something you can always talk about to yourself" (interview).

2.4.2.2 Sport-specific eudaimonic well-being.

Discussions with the athletes suggested that Ryff's (1989) non-contextual model of eudaimonia may be relevant to understanding eudaimonic well-being in the sport domain. The athletes' initial reflections on what it means to reach one's potential in sport included ideas such as being confident, pushing oneself to improve, and being goal-oriented, which share similarities with the dimensions in Ryff's model of eudaimonic well-being. After being introduced to Ryff's model, the athletes explained that it seemed to encompass what it means to reach their potential in sport. For instance, when discussing the relevance of autonomy as a feature of reaching her potential in sport, Sam noted,

In order to reach your dreams, you have to have some sort of "want". You need to be determined and independent and be able to set aside things that aren't important and strive for your goal. (interview)

Similarly, Rebecca explained how personal growth contributes to what it means to reach her potential in sport,

You're always trying to get better. You're always, like, pushing yourself more. So the more you grow, the stronger you're gonna be, the faster you're gonna be, um, the more in tune with yourself you will be. And knowing how far you can push yourself. (interview)

The only hesitation with the relevance of Ryff's model in the context of sport was in regards to environmental mastery, with some of the athletes noting that they cannot always be in control:

I think they [Ryff's six dimensions] are all relevant. The one I'm kind of questioning is the environmental mastery...Because when you are competing, especially in team sports, you can't control your environment entirely. You control what *you* do, but not your teammates, not the weather conditions, or the other team. (Rebecca, interview)

However, all of the athletes noted that they can always be striving for mastery in their sport, especially in regards to their own actions.

Upon reflection, the athletes shared that their initial ideas of reaching their potential in sport fit within Ryff's (1989) general model of eudaimonia. Sophia explained, "I think I was being more specific and these [Ryff's six dimensions] are more general. So yeah, this [Ryff's model] would cover everything" (interview). All of the athletes concluded that their personal understanding of what it means to reach their potential in sport is represented by Ryff's model of eudaimonic well-being.

2.4.2.3 The role of self-compassion in eudaimonic well-being in sport: Preventing the negative spiral.

Four themes emerged when discussing *how* self-compassion might be a resource that contributes to eudaimonic well-being in sport: self-compassion allows athletes to keep a positive mindset during difficult experiences, self-compassion encourages athletes to push forward to overcome obstacles, being self-compassionate translates into taking responsibility to rectify problems, and treating oneself with compassion facilitates "letting go" and "moving on".

Positivity. Almost all of the athletes indicated that treating themselves with compassion in sport would help them view their difficult experiences in a more positive light, changing their thoughts from negative to positive:

I think being positive is a lot of what self-compassion does; you're positive with yourself and the things you've accomplished and the things you can do. And I think it's easier to build on positivity than it is to build on negativity. (Lise, interview)

The athletes described self-compassion as a way to garner a positive mind frame, serving as a transformative tool in which they are able to see their difficult experiences in a more positive light. As Sam explained, "I think if you're self-compassionate, you pick yourself up. You're gonna be even better than you are if you're dragging yourself down in your head and criticizing yourself the whole time" (interview).

The athletes explained the importance of seeing the upside or silver lining in even their most painful sport experiences because otherwise negativity holds them back from reaching their potential. As Carmen noted, “If you’re all hung up on the negatives, it’s hard to move forward” (focus group). Similarly, Rose explained the importance of having a positive outlook as athletes journey through sport:

When you are so negative toward yourself and so hard on yourself when you make a mistake, you never see any of the good... That’s holding you back from reaching your potential. (interview)

Self-compassion would help the athletes see the positive side to their struggles in sport, allowing them to move forward in striving to reach their potential.

Perseverance. Discussions with the athletes often centered on the sheer quantity of difficult experiences they face in sport, and how self-compassion might give them a “push” to overcome these inevitable hardships. As the athletes explained, self-compassion might help them overcome struggles in sport because they would be less likely to “throw in the towel” and give up if they are treating themselves with kindness and understanding. As Rebecca described, ...you hit a road block or you’ve plateaued and you don’t feel you’re getting faster or stronger. It’s just thinking, like, being kind to yourself but also knowing that everyone goes through that. Trying to remind yourself, you know, “Don’t get down, don’t quit training just because you’re having one bad day or a bad week or something”...it would definitely help. And just, like, keep training. Keep pushing through and eventually you’ll make it past it. (interview)

The athletes expressed that self-compassion would help to take the focus off their weaknesses and inadequacies and concentrate more so on what they *can* do. Some athletes further explained that self-compassion might help them see their difficult and potentially debilitating experiences as something they can grow from. Carly, for example, spoke about how being self-compassionate allows her to recognize her mistakes and flaws, and then pushes her to improve:

... I have a weakness and I know it and I am mindful of that, um, then I think that’s a case where you can, you can recognize that and take initiative to see what you need to do to improve...to take those, the necessary steps to get closer to reaching my potential. (interview)

In contrast, the athletes shared that if they were not compassionate to themselves during difficult times, they would be more likely to give up:

...if I wasn't showing myself self-compassion, I'd just give up. Because, you know, it's a pretty big goal [to clear four meters in pole vault] and if you're not being kind to yourself along the whole way I think you'd be like, "Well why am I doing this? It's too hard", you know, "I'm not succeeding so I'm just gonna quit"... Like, if you're not kind to yourself, especially in those low points in your career – which everybody has in sport – you'll quit. (Carmen, interview)

There were even a handful of athletes, such as Sarah and Sophia, who confessed that they had quit sports in the past precisely because they were not being self-compassionate, but rather were overly critical towards themselves. Thus, self-compassion might be a helpful resource for athletes to push through difficult times in sport, to overcome obstacles as they strive to reach their potential.

Responsibility. Almost all of the athletes explained that being self-compassionate would allow them to take accountability for their difficult sport experiences and responsibility to rectify the situation. The mindfulness component of self-compassion seemed to play a key role when the athletes discussed taking responsibility in sport. For example, Sam, Susan, and Sophia explained that the self-awareness that is inherent to self-compassion would enable them to see a situation more clearly, ultimately allowing them to take responsibility for their sport experiences:

...you're, um, taking time to notice what's happening – rather than just ignoring your emotions and what's going on – you know, you can't blame others...only you can really control your own emotions and things. (Sophia, interview)

Along with taking ownership of one's difficult sport experiences, the women expressed that being self-compassionate would allow them to take responsibility to work towards "fixing" things. As Sarah stated,

I think I would probably take more responsibility...rather than beating yourself up about it, if you are self-compassionate and try and think about, "Okay, what is causing this?", you'll think, "Okay, maybe I need to start eating better. Maybe I need to train more, or train less." So being self-compassionate helps you to actually think about steps to better that. (interview)

Carmen echoed this sentiment by expressing “...it’s, like, moving forward, ‘what should I do next?’...‘what can I do in the future?’” (focus group). Because struggles would be approached with kindness and understanding rather than harsh and judgmental criticism, treating oneself with compassion would encourage athletes to take responsibility to work to remedy the situation.

Rumination. Many of the athletes, including Kim, Sarah, Carmen, and Rebecca, explained that being self-compassionate would serve as a way to keep things in a balanced perspective, so as to not be consumed by difficult experiences; “you won’t get overwhelmed with the challenging times” (Rebecca, focus group). As the athletes shared, there are countless opportunities to be dragged down in sport, but self-compassion can offer a way to “...dwell less on the negative” (Sarah, focus group). Kim explained, “To me, self-compassion would help me to keep things in perspective. Knowing that this is just one competition out of how many, and this is just one year out of, like, a long career” (interview).

Although there were a number of conversations that identified self-compassion as a way to take responsibility to rectify situations, there seemed to be an understanding that “...sometimes it’s better to just recognize it and forget it” (Carly, interview). That is, self-compassion would help them recognize their difficult experiences and allow them to respond in a loving manner, which sometimes means moving on. The women went on to note that being self-compassionate offers a balanced approach to one’s difficulties in sport whereby struggles are recognized but not ruminated on:

...you made a mistake, you have to realize...and then understand that you can’t dwell on it. You have to, like, let it go... Having that balanced approach and realizing it’s a shitty situation, but that it’s not gonna happen forever...don’t dwell on it...With self-compassion, I would definitely dwell on it less. (Rose, focus group)

In this light, the athletes described self-compassion as a counterforce to rumination, whereby they are not consumed or dragged down by the inevitable struggles in sport. As Rose stated, “You can’t keep beating yourself up about the same thing over and over or you’re not gonna move forward” (focus group).

2.4.2.4 Threats of self-compassion.

Many of the women were not entirely convinced that treating themselves with compassion in sport would always be in their best interest. That is, the potential usefulness of self-compassion in the athletes’ difficult sport experiences was sometimes met with hesitation.

The women's apprehension about fully embracing self-compassion rested on two main concerns. First, that self-criticism – arguably the antithesis to self-compassion – may be a necessity in sport because “...sometimes it's better to be critical” (Lise, interview). As Sophia explained,

...if you're just accepting every time you fail at something, and you're like, “Oh well, it happens to everybody”, then you sometimes just get stuck in that mindset and aren't caring enough to improve. If you just disregard self-criticism then sometimes it's hard to improve. (interview)

The athletes seemed to have a reliance on self-criticism in sport and view it as important for improvement and goal attainment. For many of the athletes, including Lise and Rebecca, criticism is necessary because it motivates them and pushes them further. With self-criticism appearing to play an important role in sport, there might not always be a place for a more gentle and kind self-attitude granted by self-compassion.

Wrestling with the notions of self-compassion and self-criticism, the women concluded that both self-criticism and self-compassion are likely beneficial in sport. There seemed to be consensus that extreme self-criticism or self-compassion in isolation would not suffice in reaching one's potential. Sarah summed it up by stating,

Together they [self-criticism and self-compassion] can make the best athletes...But if you're *just* critical or you're *just*, you know, kind to yourself...you're not gonna be the best you *can* be at that because you do need both, I think, to reach that full potential. (focus group)

The second concern the women had with self-compassion was the threat of becoming complacent in sport if they are *too* self-compassionate. In other words, being too kind and too loving towards oneself might result in mediocrity or passivity in sport:

Self-compassion...you're kind of being like, it's okay if you don't do the best...Some people would see it as, you know, this person's not gonna try their best because they're not gonna make themselves do it. (Kim, interview)

The concern with self-compassion leading to passivity has clear connections with the emphasis the athletes place on self-criticism in sport, with the underlying message being that it is sometimes important to be hard on oneself. The athletes explained that being too kind towards oneself would be like letting yourself off the hook. As Sarah noted, “it seems like you're being lenient and like you're not pushing yourself enough” (interview). Sasha commented:

it's [self-compassion] giving yourself a break when you shouldn't be...I feel that most people who are like that don't go as far in sports because they're too easy on themselves...they just accept what they're doing and that's that and that's all they expect from themselves because they think it's good enough (interview).

A few athletes who had noted they already treated themselves compassionately in sport explained that self-compassion would only lead to passivity if it was used incorrectly. For example, Carmen recounted "...if it's being used inappropriately...or misinterpreted...it could maybe contribute to a standstill in sport" (interview). These athletes recognized that genuine self-compassion would not make them complacent in their sport. Regardless, the majority of the women expressed reservations about the usefulness of self-compassion to reaching their potential in sport.

2.5 Discussion

The purpose of this mixed methods study was to explore the role of self-compassion in young women athletes' eudaimonic well-being.⁶ The quantitative phase showed a positive relationship between self-compassion and eudaimonic well-being, which is an essential step in working to understand the role of self-compassion in young women athletes' psychological flourishing. To further understand this relationship, the qualitative phase explored if and when self-compassion might be useful, as well as how it might contribute to eudaimonic well-being in sport. Thus, this study represented a sequential explanatory design, with the qualitative findings intended to expand on initial quantitative results (Creswell, 2014).

In addition to providing support for the relevance of self-compassion and eudaimonic well-being for young women athletes, both phases provided insight into variables that may further our understanding of the role of self-compassion in reaching human potential. In the quantitative phase, hypothesized relationships between self-compassion and eudaimonic well-being with postulated process variables (i.e., passivity, responsibility, initiative, self-determination) were supported. These results are consistent with positive relationships between self-compassion and initiative shown in previous research (Neff, Rude, et al., 2007), as well as eudaimonic well-being and initiative (Robitschek & Keyes, 2009). Other research has shown

⁶ The direction of my dissertation, specifically the population of interest, was originally more broad and included both athletes and exercisers. As such, exercisers had also participated in the quantitative phase of Study 1 and a write-up from this data appears in Appendix O.

self-compassionate individuals to be more likely to accept responsibility for their role in negative events (Leary et al., 2007), as well as to be more intrinsically motivated and self-determined (Magnus et al., 2010; Neff et al., 2005). The negative relationship between self-compassion and passivity supports the claim that having compassion for oneself is a powerful motivating force for growth and change (Neff, 2003b). Therefore, many of my findings coincide with what would be expected based on previous research; however, one contribution of the quantitative phase is examining these relationships, especially the self-compassion–eudaimonic well-being relationship, in young women athletes.

Interpretation of the path model analysis should be done within the confines of a cross-sectional design, providing suggestive rather than definitive results. Findings from the model suggest that self-compassionate individuals are actively engaged; take initiative; assume responsibility for their actions, emotions, and thoughts; and act of their own volition. Subsequently, these process variables might help us understand why self-compassion is related to eudaimonic well-being. There were specific indirect effects of self-compassion on eudaimonic well-being through passivity and initiative, which suggests that taking action and being intentionally involved in changing and developing as a person are two variables that, in particular, should further be considered when exploring the self-compassion–eudaimonic well-being relationship. Although specific indirect effects did not emerge for responsibility and self-determination, it may be premature to abandon further examination of these variables as they were part of the overall indirect effect. Moreover, failing to find specific indirect effects for responsibility and self-determination can likely be attributed to the amount of shared variance among the proposed process variables, as the effects of mediators are often attenuated by the degree to which the variables are related to one another (Preacher & Hayes, 2008). The considerable amount of shared variance between responsibility and self-determination with both passivity and initiative would have left little unique variance to contribute to the model. Similarly, the shared variance among the proposed mechanisms likely contributed to the non-significant pairwise contrasts.

All variables that were explored in the path model in the quantitative phase were presented to the athletes during one-on-one interviews in the qualitative phase. Embracing the flexibility of semi-structured interviews and emergent methods of qualitative research (Creswell, 2013, 2014), I intentionally introduced each construct as a topic for discussion and allowed

conversations to unfold naturally. Thus, discussions flowed from the specific constructs considered in the quantitative phase to the athletes' interpretations as to how self-compassion might be useful in sport. At times these conversations resulted in elaboration (i.e., agreement) on the construct that was initially introduced. At other times, new ideas emerged as the participants' shared their meanings and experiences. The athletes did not necessarily disagree with the original constructs, but their discourse as to how self-compassion might be useful and help them flourish in sport might not have been entirely captured by the original construct. Presenting the themes that emerged from the one-on-one interviews to the athletes in the focus groups provided the opportunity for (1) refinement and (2) further discussion of themes. To that end, two of the original themes that emerged from the interview data were reorganized to fall within other themes. Motivation and perspective-taking, which had originally emerged from my analysis of the interview data, were essentially described as embedded within other themes (e.g., perseverance, positivity, responsibility) and thus did not represent independent themes. The dynamic conversations that occurred during the focus groups granted me the chance to member check emergent themes, which enlightened my interpretation of the athletes' meanings. Ultimately, discussions with the women in the qualitative phase provided additional insight into the role of self-compassion in young women athletes' psychological flourishing.

The athletes in the qualitative phase explained that self-compassion would foster positivity during difficult times, perseverance in the face of adversity, responsibility for one's actions, as well as perspective to not get overwhelmed by hardships. These themes suggest that self-compassion might serve as a way to prevent athletes from being dragged into a downward and debilitating spiral of negativity during their struggles in sport; thus, allowing them to continue to pursue their potential. Moreover, findings support links found in past research between self-compassion and positivity, perseverance, responsibility, and rumination. For example, self-compassion has been shown to lead to positive emotional responses such as happiness and optimism (Neff, Rude, et al., 2007; Reyes, 2011). Researchers have also found self-compassion to be associated with mastery goal orientation (i.e., having greater effort and persistence at tasks) as well as viewing failure as a learning opportunity (Neff et al., 2005), supporting the women's position that self-compassion would make them more perseverant. Self-compassionate individuals are less likely to ruminate on life challenges (Neff, 2003; Neff, Kirkpatrick, et al., 2007), suggesting that having compassion for oneself translates into taking

accountability for personal weaknesses and life challenges with fewer emotional overreactions (Neff, 2009). Evidence for the healing qualities associated with self-compassion (Neff, 2009) coupled with the insight shared by the athletes in the qualitative phase suggests that self-compassion may serve as a useful resource in striving to reach one's potential in sport.

There was some overlap between constructs explored in the quantitative phase and discussions with the athletes in the qualitative phase. For example, the athletes in the qualitative phase spoke to the responsibility-promoting attributes of self-compassion by explaining that treating themselves compassionately would allow them to take accountability for their role in difficult sport situations, which includes working to rectify the situation. The women's explanations support previous research by Leary et al. (2007) who found that self-compassionate individuals were more likely to assume a level of personal responsibility for negative life experiences, while at the same time not get carried away or feel negatively about their circumstances. Berry et al. (2010), Breines and Chen (2012), and Magnus et al. (2010) have also suggested that having self-compassion encourages change to rectify harmful or unproductive patterns of behaviour. Since self-compassionate individuals are not dragged down by being excessively hard on themselves, they can face up to personal weaknesses and life challenges (Neff, 2009); thus, as the women in the qualitative phase explained, being self-compassionate in sport may foster personal responsibility to reach human potential in sport.

Although two concepts that emerged from the qualitative data – positivity and rumination – have previously been examined within the self-compassion literature (e.g., Neff, 2003a; Neff, Kirkpatrick, et al., 2007; Neff, Rude, et al., 2007; Neff & Vonk, 2009), to the best of my knowledge this is the first study to consider perseverance within the self-compassion literature. As the athletes explained, being self-compassionate might push them through struggles in sport because they would be treating themselves with kindness and understanding, rather than being overly hard on themselves, which might lead some athletes to waver or even give up. Given the difficult experiences that are frequent in sport (Fraser-Thomas et al., 2005; Mosewich et al., 2009), extending compassion towards the self might be one way that young women athletes can persevere through those difficulties, and do so in a loving, kind, and constructive manner. Moreover, identifying that self-compassion might promote perseverance in sport is an important finding as effort and discipline are needed to psychologically flourish (Ryff & Keyes, 1995).

Findings from the current study are particularly important because they contribute to ongoing discussions in the self-compassion literature regarding the proclivity for self-compassionate individuals to be complacent (Neff, 2003b, 2009; Neff, Kirkpatrick, et al., 2007).⁷ Interestingly, results from the two phases conflicted, essentially providing evidence both for *and* against self-compassion being linked with passivity in sport. In the quantitative phase self-compassion was negatively related to passivity and positively related to variables indicative of taking action (e.g., initiative, self-determination), which are important findings given that inaction would ultimately obstruct flourishing. In addition, evidence for the indirect effect of self-compassion on eudaimonic well-being through reduced passivity supports Neff's (2003a, 2003b) conception of self-compassion as a powerful motivating force promoting action towards growth and well-being. Quantitative findings therefore support the position that having compassion for oneself includes an inherent desire to take the actions that are needed for optimal functioning and health (Neff, 2003a; Neff, Kirkpatrick, et al., 2007; Neff, Rude, et al., 2007).

In the qualitative phase the women expressed hesitations about being self-compassionate in sport, disclosing their concern that having too much self-compassion might result in complacency and passivity. The athletes explained that being too self-compassionate might make them lenient and content with "good enough" in their sport, which would ultimately obstruct reaching their potential. Many of the athletes described the need for criticism in sport, which self-compassion would essentially negate due to its distinguishing feature of a lack of self-criticism (Neff, 2012; Neff, Kirkpatrick, et al., 2007). The athletes explained that being hard on themselves is a way to stay motivated and reach their goals, suggesting that self-criticism might be a necessity in sport that self-compassion could not offer. This finding supports a recent study by Mosewich, Crocker, and Kowalski (2013), who found that elite women athletes are often self-critical when managing setbacks in sport. The athletes in the study by Mosewich, Crocker, and Kowalski noted that self-criticism is vital in order to critically evaluate and learn from challenges and difficulties in sport. Interestingly, some of the athletes recognized the negative impact that

⁷ Other re-occurring concerns in the literature include the differences between (1) self-compassion and self-esteem, and (2) eudaimonic well-being and hedonic well-being. Given that a fair amount of previous research has addressed these concerns (e.g., Deci & Ryan, 2008; Keyes, Shmotkin, & Ryff, 2002; Leary et al., 2007; Magnus et al., 2010, Mosewich et al., 2011, Neff, 2003a; Neff, Kirkpatrick, et al., 2007; Neff & Vonk, 2009; Ryff, 1989; Waterman, Schwartz, & Conti, 2008), examining the differences between these constructs was not a main objective of my dissertation. However, given that discussions continue to appear in the literature, additional analyses were included in Study 1 to support previous research findings that self-compassion and self-esteem, as well as eudaimonic and hedonic well-being are similar yet separate constructs (See Appendix P).

criticalness can have when cycling between striving for perfection and self-criticism, and the resultant self-doubt when failing to live up to one's desired perfectionism (Mosewich, Crocker, & Kowalski, 2013). Regardless, self-criticism was viewed as necessary for personal improvement, as well as an inherent part of the competitive environment (Mosewich, Crocker, & Kowalski, 2013). The seeming reliance on self-criticism by athletes in the qualitative phase of my research as well as in research by Mosewich, Crocker, and Kowalski is especially interesting because it contradicts previous research by Powers, Koestner, Lacaille, Kwan, and Zuroff (2009) who found that self-criticism was associated with lower goal progress in athletes.

Collectively, findings from this study point to an interesting paradox: although self-compassion shows promise as a useful resource, there are likely challenges when it comes to applying self-compassion in the context of sport. Perhaps the greatest contribution to the literature provided by this study is identifying implications with trying to apply self-compassion in sport. Findings advanced by the qualitative phase in particular point to significant challenges that might translate into barriers in applying self-compassion in the context of competitive sport. The athletes' expressed apprehensiveness about embracing a self-compassionate mindset may have theoretical ramifications on the self-compassion construct, as the advantages of self-compassion are of little use if there is resistance or refusal by athletes to extend compassion towards the self. Moreover, the challenges with self-compassion are amplified if other resources or self-attitudes (e.g., self-criticism) are more highly endorsed in sport. Future research that works to understand athletes' fear of self-compassion (Gilbert, McEwan, Matos, & Ravis, 2011) may be one way to explore their reliance on self-criticism and apprehension with extending compassion toward the self.

Despite reservations about being too self-compassionate, the athletes in the qualitative phase identified four situations in which self-compassion might be advantageous in sport: when failing to meet personal goals or expectations, making mistakes during competition, plateauing, and suffering from injuries. These identified situations are significant for at least three reasons. First, the identified instances support the claim made by Neff (Neff, 2003a, 2003b; Neff & Vonk, 2009) that self-compassion might be particularly useful during times of struggle, as well as Reyes' (2011) explanation of suffering as an antecedent of self-compassion. Second, having the women identify situations when self-compassion might be useful speaks to the potential utility of self-compassion as a personal resource; providing protective and reparative functions that

originate from within oneself (Leary et al., 2007; Neff, 2003b). The athletes explained that the benefit of self-compassion during these difficult times in sport is that it is a personal resource; something they always have access to because it emanates from the self. Thus, my findings suggest that there may be credibility in viewing self-compassion as a personal resource or skill that people can develop (Neff, Kirkpatrick, et al., 2007) and call upon when struggling in sport. Third, having participant-generated instances as to when self-compassion might be helpful is a significant contribution to the literature as little is known about *when* self-compassion might be useful in sport. The instances identified align with previous research that has explored common setbacks in sport (e.g., poor performance, performance plateau, injury; Mosewich, Crocker, & Kowalski, 2013). Future research that continues to explore self-compassion in the context of sport might examine young women athletes' reactions to hypothetical sport scenarios that are based on the instances identified by the women in the current study

This study is not without its limitations. The confines of a cross-sectional design in the quantitative phase (e.g., lack of a cause-effect pathway and temporal order of the variables; Baron & Kenny, 1986; Mathieu & Taylor, 2006) preclude conclusions of directionality, causality, or definitive mediation. Instead, the path model analysis was exploratory and the data were consistent with one model of multiple mediation. Although the model in the quantitative phase was grounded in the literature, other path models are plausible (e.g., Neff & McGeehee 2010; Wei, Liao, Ku, & Shaffer, 2011) and should be explored to move this novel research area forward.

Another challenge with my research pertains to the amount of shared variance among study variables, as shown in the quantitative results. One possible explanation for the amount of shared variance between self-compassion and eudaimonic well-being (i.e., over 50%) might be conceptual similarities between the two constructs.⁸ Both constructs fall within the larger sphere

⁸ In addition to considering conceptual similarities between self-compassion and eudaimonic well-being, I attempted to gain empirical insight into similarities between the two constructs by exploring the relationships between the SCS and subscales from the SPWB. The SCS was positively correlated (all $p < .01$) with all SPWB subscales: Autonomy ($r = .47$), Environmental Mastery ($r = .68$), Personal Growth ($r = .55$), Positive Relations with Others ($r = .58$), Purpose in Life ($r = .63$), and Self-Acceptance ($r = .74$). Two important conclusions can be drawn from these results. First, all subscale relationships were smaller than the association between the SCS and SPWB composite. The magnitude of relationships mirrors associations, and in some instances is lower, documented in previous research between self-compassion and indices of well-being (e.g., anxiety, optimism; r s = .62-.73; Neff, 2003a; Neff & McGeehee 2010; Neff, Rude, et al., 2007). Second, there is variability in the extent to which self-compassion and eudaimonic well-being overlap, with self-compassion sharing considerable variance with some dimensions of psychological flourishing (i.e., Self-Acceptance; over 50%), and little variance with other dimensions (e.g.,

of positive psychology (Seligman & Csikszentmihalyi, 2000) that focuses on psychological strengths, fulfillment, and growth. Looking specifically at each construct, connections can be made between having a positive attitude toward the self – an inherent feature of self-compassion – and the self-acceptance element of eudaimonia. However it is important to note that Ryff's (1989, 1995) model of eudaimonic well-being cannot be reduced to self-acceptance, as it is a multidimensional, theory-based formulation of well-being that consists of multiple aspects of positive functioning (Ryff & Keyes, 1995). Moreover, self-compassion is theoretically viewed as a way to enhance well-being (Neff & Vonk, 2009), whereas Ryff's model of eudaimonic well-being defines psychological well-being. Research findings support these important conceptual distinctions, with self-compassion appearing to have more malleable qualities (e.g., self-compassion inductions, self-compassion states; Breines & Chen, 2012; Leary et al., 2007) than the enduring attributes of eudaimonia (Schmutte & Ryff, 1997).

Autonomy; 22%). Thus, as might be expected, the overlap between self-compassion and eudaimonic well-being can largely be attributed to the amount of shared variance between self-compassion and self-acceptance.

2.6 Bridging Summary

Findings from my mixed methods approach in Study 1 lead to two intersecting conclusions about the relationship between self-compassion and eudaimonic well-being in young women athletes. First, self-compassion is relevant to and associated with young women athletes' eudaimonic well-being. Quantitative evidence was provided for self-compassionate athletes having greater eudaimonic well-being, as well as qualitative support of athletes' experiences and understandings of self-compassion in sport (e.g., how self-compassion might be useful in helping athletes reach their potential). Second, there appear to be significant implications that need to be considered regarding the usefulness of self-compassion for athletes' psychological flourishing. Concerns over the threat of complacency as a result of treating oneself compassionately are of grave significance to this research area, as passivity inherently runs counter to psychological flourishing.

Given athletes' seeming hesitation with extending compassion toward the self in sport, Study 2 was intended to gain a better understanding of the relationship between self-compassion and eudaimonic well-being specifically within the context of sport. To explore the sport-specific relationship between self-compassion and eudaimonic well-being, Study 2 incorporated three key elements. First, the study was contextualized to sport using a hypothetical, sport-specific, scenario-based research design. Second, self-compassion was assessed at both the trait level (i.e., the SCS) and a more context-specific level (i.e., self-compassionate reactions to hypothetical, emotionally difficult, sport-specific scenarios). Including both conceptualizations of self-compassion allowed for exploration into whether an overarching self-compassionate mindset or state-like self-compassionate reactions holds greater promise for athletes' psychological flourishing in sport. Third, the specific dimensions of eudaimonic well-being were explored given that (1) the sport-specific focus required a certain level of specificity to circumvent evaluative inconsistency (Ajzen & Fishbein, 2005), and (2) the lack of a eudaimonic well-being in sport model required locating proxy indicators of eudaimonic well-being. According to athletes in the qualitative phase of Study 1, Ryff's (1989) model of eudaimonia may be a starting point in developing our understanding of eudaimonic well-being in sport. As such, proxy indicators were included for each of Ryff's (1989, 1995) dimensions of eudaimonia to more fully represent the breadth of psychological flourishing, which might have been missed if only a composite of eudaimonia in sport were used.

Chapter 3; Study 2: The Role of Self-Compassion During Emotionally Difficult Times in Sport on Young Women Athletes' Psychological Flourishing

3.1 Abstract

Evidence is emerging for the potential usefulness of self-compassion (Neff, 2003a, 2003b) in young women athletes' sport experiences (Mosewich, Crocker, Kowalski, & DeLongis, 2013; Mosewich et al., 2011). However, little is known as to whether self-compassion contributes to or thwarts psychological flourishing in sport. The purpose of this study was to explore the role of self-compassion during emotionally difficult sport situations in relation to psychological flourishing in sport. Participants ($N = 137$; $M_{\text{age}} = 19.04$ years) completed an online survey including measures of self-compassion and eudaimonic well-being, as well as reactions (i.e., self-compassionate, positive, perseverant, responsible, ruminative, passive, and self-critical) to hypothetical, emotionally difficult, sport scenarios and proxy indicators of eudaimonic well-being. Findings contextualize the relationship between self-compassion and eudaimonic well-being to the sport domain, with significant associations between self-compassion and autonomy, meaning and vitality in sport, and body appreciation. The data were also consistent with models of indirect effects suggesting that (1) self-compassionate athletes have greater body appreciation through increased positive and decreased passive reactions to emotionally difficult sport situations, and (2) self-critical reactions might suppress the relationships between self-compassion with finding meaning and having quality relations with others in sport. Taken together, the pattern of findings suggest that compassionately relating to the self might be advantageous for aspects of young women athletes' psychological flourishing in sport, as having a kind and understanding self-attitude might nurture constructive reactions to emotionally difficult sport situations. Findings can inform future research with more advanced study designs (e.g., longitudinal and/or experimental) to better understand how self-compassion is linked with optimal psychological functioning in sport.

3.2 Introduction

Self-compassion, an emotionally positive self-attitude that represents a healthy relationship towards oneself (Neff, 2003a, 2003b), is emerging as relevant for young women athletes (Mosewich, Crocker, Kowalski, & DeLongis, 2013; Mosewich et al., 2011). In Study 1, I found that self-compassionate athletes had greater eudaimonic well-being, which provides preliminary support for the promise of self-compassion in young women athletes' positive development. The significant trait-level relationship laid the foundation for exploring self-compassion and eudaimonic well-being specifically within the sport domain. Therefore, a key question that remains is whether the self-compassion–eudaimonic well-being relationship exists specifically within the context of sport, and thus whether extending compassion towards the self might be useful to psychologically flourish in sport.

Insight gained through qualitative findings in Study 1 suggests that young women athletes recognize the usefulness of treating oneself with compassion in a variety of painful and difficult sport experiences (i.e., failing to meet personal goals, making mistakes, working through an injury, plateauing). The athletes explained that self-compassion might be useful during their difficult experiences by providing a more positive mindset, promoting perseverance to overcome hardships, encouraging personal responsibility to rectify situations, as well as decreasing rumination on struggles experienced in sport. However, the women also expressed apprehension about fully embracing self-compassion given (1) their perception that treating oneself compassionately carries with it the threat of passivity in sport, and (2) their reliance on self-criticism as a necessity in sport. The athletes' concern about complacency, though conceptually unfounded as the care intrinsic to compassion is a powerful motivating force (Neff, 2003b, 2009), mirrors ongoing discussions in the literature about self-compassion leading to passivity (Neff, 2003b, 2009). The athletes' reliance on self-criticism supports research by Mosewich, Crocker, and Kowalski (2013) who also found self-criticism to be prevalent (i.e., frequent and viewed as important for improvement) among women athletes. Previous research has shown self-compassion to be negatively associated with self-criticism (Neff, 2003a; Neff, Kirkpatrick, et al., 2007); regardless, how self-compassion and self-criticism play out in terms of psychological flourishing in sport remains unclear.

Given the apparent paradox between the potential advantages (e.g., positive relationship between self-compassion and psychological flourishing, identification of self-compassion as

useful in sport) and simultaneous threats of self-compassion (e.g., concerns with complacency, necessity of self-criticism), more research is needed to understand the role of self-compassion in sport. The current study attempted to explore whether self-compassion contributes to or detracts from psychological flourishing in sport.

Differing perspectives on the self-compassion construct provide further gaps in our understanding of self-compassion in sport. Neff (2003a, 2003b, 2004) originally conceptualized self-compassion as more of a personality trait, developing the Self-Compassion Scale (Neff, 2003a) to assess the tendency for individuals to have a healthy self-attitude characterized by extending compassion towards the self. Since its original inception, evidence has started to accumulate for self-compassion as more of a state-like resource or tool, given its potential as an emotional regulation strategy that neutralizes negative emotional patterns and prompts positive feelings of kindness and connectedness (Neff et al., 2005; Neff, Kirkpatrick, et al., 2007). These differing perspectives add another layer of complexity to our understanding of the role of self-compassion in sport. Specifically, it is unknown whether (a) having a general self-compassionate attitude (i.e., *self-compassionate athletes*) and/or (b) reacting self-compassionately to emotionally difficult sport situations (i.e., *self-compassionate reactions*) contribute to or thwart psychological flourishing in sport. These are important questions to address as they have implications on the future of self-compassion in the context of sport.

To accurately assess well-being in different life domains, it is imperative to supplement global assessments of well-being with context-specific measures (Lundqvist, 2011). Eudaimonic well-being should therefore be assessed at the sport level to more accurately understand the relationship between self-compassion and eudaimonic well-being in sport. However, to date, there is no model of eudaimonic well-being in sport. Initial attempts to understand eudaimonic well-being in sport would likely benefit from considering each specific dimension of eudaimonia, as opposed to one composite indicator, to best reflect the scope of psychological flourishing. Exploring each dimension in isolation may provide understanding into the breadth and complexity of psychological flourishing in sport, as well as provide a more nuanced understanding of the relationship between self-compassion and the dimensions of psychological flourishing in sport. This level of specificity might uncover key aspects of flourishing in sport that link with self-compassion, which might otherwise go undetected if the specific dimensions of eudaimonia are not considered.

In addition, to begin to understand the role of self-compassion in eudaimonic well-being within sport, it is important to consider processes that might be pertinent to the context-specific relationship. Potential mechanisms in the self-compassion–eudaimonic well-being relationship emerged in the quantitative phase of Study 1 (i.e., passivity, responsibility, initiative, and self-determination); however, Terry, Leary, Mehta, and Henderson (2013) recommended that researchers explore alternative processes by which self-compassion plays a role in various life outcomes, as self-compassion might relate to different life outcomes through differing processes. Moreover, as research progresses, it is common to see alternative processes explored as new understandings emerge (e.g., Frazier, Barreto, & Newman, 2012; Frazier, Newman, & Jaccard, 2007). It is therefore natural that the processes involved in the sport-contextualized self-compassion–eudaimonic well-being relationship might differ from those previously considered. The qualitative phase of Study 1 provided insight as to how self-compassion might facilitate psychological flourishing specifically within sport; suggesting that positivity, perseverance, responsibility, and rumination are plausible mechanisms in the sport-specific self-compassion–eudaimonic well-being relationship. Passivity and self-criticism are also potentially important processes, as the athletes in the qualitative phase of Study 1 expressed reservations about self-compassion leading to passivity and emphasized the importance of self-criticism in sport.

The purpose of this study was to explore the role of self-compassion during hypothetical, emotionally difficult, sport scenarios in relation to psychological flourishing in sport. It was hypothesized that: (1) self-compassion would be positively related to psychological flourishing in sport, such that self-compassionate athletes would have greater psychological flourishing; (2a) self-compassion and psychological flourishing in sport would be positively related to positive, perseverant, and responsible reactions to emotionally difficult sport situations, and negatively related to ruminative, passive, and self-critical reactions; and, (2b) the relationships between self-compassion and psychological flourishing in sport would be consistent with models of multiple mediation, with positive, perseverant, responsible, ruminative, passive, and self-critical reactions serving as plausible mechanism variables.

A similar pattern of results was expected when looking specifically at *self-compassionate reactions* to hypothetical, emotionally difficult, sport scenarios. In this instance, it was hypothesized that: (1) self-compassionate reactions to emotionally difficult sport situations would be positively related to psychological flourishing in sport; (2a) self-compassionate

reactions and psychological flourishing in sport would be positively related to positive, perseverant, and responsible reactions to emotionally difficult sport situations, and negatively related to ruminative, passive, and self-critical reactions; and, (2b) the relationships between self-compassionate reactions and psychological flourishing in sport would be consistent with models of multiple mediation, with positive, perseverant, responsible, ruminative, passive, and self-critical reactions serving as plausible mechanism variables.

3.3 Method

3.3.1 Participants.

Young women athletes ($N = 137$) who had competed in at least one sport within the previous 12 months were recruited from university classes and high school sport teams. Participants ranged in age from 16-25 years ($M_{\text{age}} = 19.04$ years, $SD = 1.84$ years), had a mean weight of 63.14 kg ($SD = 7.85$ kg), and a mean height of 167.77 cm ($SD = 7.18$ cm). The majority of participants self-identified as Caucasian (94.89%) and single (95.62%). Participants represented 23 different sports (e.g., basketball, hockey, fastball, soccer, track and field) ranging from local (78.83% of participants) to international (7.30% of participants) levels of competition. The majority of participants (55.5%) reported being active in sport three or more times during the past week.

3.3.2 Measures and materials.

3.3.2.1 Self-compassion.

The 26-item Self-Compassion Scale (SCS; Neff, 2003a; see Appendix E) is a five-point scale ranging from 1 (almost never) to 5 (almost always). Six subscales (i.e., self-judgment, self-kindness, isolation, common humanity, over-identification, and mindfulness) measure the three main components of self-compassion, which taken together represent the overall level of self-compassion. Items from negatively phrased subscales were reverse scored before computing a total mean. Higher scores on the SCS represent higher levels of self-compassion (i.e., *self-compassionate athletes*). Past research has shown that SCS scores demonstrate internal consistency reliability, discriminant validity, and concurrent validity in university student samples (Leary et al., 2007; Neff, 2003a; Neff et al., 2005). The SCS also has evidence of reliability with adolescent (Neff & McGeehee, 2010) and sport samples (Mosewich et al., 2011).

3.3.2.2 Eudaimonic well-being.

The 54-item version of the Scales of Psychological Well-Being (SPWB; Ryff & Keyes, 1995; see Appendix F, with bolded items representing the 54-item version) with a six-point scale ranging from 1 (strongly disagree) to 6 (strongly agree) was used to measure eudaimonic well-being. The scale consists of six 9-item subscales assessing autonomy, environmental mastery, personal growth, positive relatedness, purpose in life, and self-acceptance. After reverse scoring negatively phrased items, subscale mean scores were calculated as well as a single composite score by taking the mean across all subscales. Past research has shown that the SPWB scores demonstrate internal consistency reliability, factorial validity, convergent validity, and discriminant validity (France & Finney, 2009; Nave et al., 2007; Ryff, 1989; Ryff & Keyes, 1995). The scale has demonstrated broad applicability in terms of use with samples of various ages (Nave et al., 2007; Ryff, 1989), as well as an athlete sample (Edwards & Steyn, 2008).

3.3.2.3 Proxy measures of eudaimonic well-being.

Due to the lack of a sport-specific model of eudaimonic well-being, Ryff's (1989, 1995) model of eudaimonia provided a theoretical framework of optimal psychological functioning in sport, as it has been advocated as one way to approach well-being in sport (Lundqvist, 2011). However, Ryff and Keyes' (1995) measure of eudaimonic well-being is not contextualized to a specific life domain; therefore, participants completed a number of validated measures to serve as proxy indicators of Ryff's six dimensions of eudaimonic well-being. A composite score of eudaimonic well-being in sport was also calculated by taking the mean of each standardized proxy measures' score.

Autonomy. The autonomy subscales (i.e., choice, four items; internal perceived locus of causality, three items; and, volition, three items) from the Basic Need Satisfaction in Sport Scale (BNSSS; Ng, Lonsdale, & Hodge, 2011; see Appendix Q) were used as a proxy measure of *autonomy* in the sport context. The subscales have a seven-point scale ranging from 1 (not true at all) to 7 (very true). After reverse-scoring negatively phrased items, a total autonomy score was calculated by taking the mean of the items. Scores on the subscales have demonstrated evidence of internal consistency and construct validity (Ng et al., 2011).

Environmental mastery. Three subscales (i.e., sport competence, physical conditioning, and physical strength; six items per subscale) from the Revised Physical Self-Perception Profile (PSPP-R; Lindwall, Asci, & Hagger, 2011; see Appendix R) measured sport-specific

environmental mastery, as these subscales seemed particularly relevant to mastery in the sport context. Participants responded to items using a four-point scale ranging from 1 (not true at all for me) to 4 (really true for me). A total score was calculated by taking the mean across the three subscales. The revised scale has marked improvements over the original, including the addition of a Likert-scale rather than the previous problematic idiosyncratic response scale (Lindwall et al., 2011).

Personal growth. Huta and Ryan's (2010) Sense of Meaning scale (SoMS; see Appendix S), which is a 12-item measure of the extent to which one's pursuits have been meaningful, was modified and used to measure *personal growth* in sport. Specifically, instructional changes were made to make the scale specific to the sport context (i.e., "*To what degree do you typically feel that your sport activities and experiences are...*"). The SoMS is rated along a seven-point scale ranging from 1 (not at all) to 7 (very much). Scores were calculated by taking the mean of the items. The measure has been associated with the Meaning in Life Questionnaire (Steger, Frazier, Oishi, & Kaler, 2006).

Positive relatedness. The relatedness subscale (5 items) from the BNSSS (Ng et al., 2011; see Appendix Q) was used as a proxy measure of *positive relatedness* in the sport context. The subscale has a seven-point scale ranging from 1 (not true at all) to 7 (very true). A total relatedness score was calculated by taking the mean of the items. Scores on the subscale have demonstrated evidence of internal consistency and construct validity (Ng et al., 2011).

Purpose in life. Bostic, McGartland Rubio, and Hood's (2000) modified version of the Subjective Vitality Scale (SVS; see Appendix T) was used to assess *purpose in life* in the sport context. The SVS is a six-item, seven-point scale ranging from 1 (not at all) to 7 (very much) that assesses feeling alive and having energy available to the self, similar to the eudaimonic perspective that being vital and energetic is part of what it means to be fully functioning and psychologically well (Ryan & Deci, 2001). Previous research has modified scale instructions to be context-specific (e.g., Podlog, Lochbaum, & Stevens, 2010); as such, instructional changes were made to the SVS to contextualize the scale to the sport context (i.e., "*Overall, during my sport experiences:*"). A total score was calculated by taking the mean of the items. The scale has established psychometric properties (Bostic et al., 2000), reliability, and validity, including positive associations with self-actualization and negative associations with ill-being (e.g., anxiety and depression; Ryan & Frederick, 1997).

Self-acceptance. Given the focus on sport in the current study, it seemed pertinent to emphasize acceptance of the physical self when considering the self-acceptance dimension of eudaimonic well-being. The Body Appreciation Scale (BAS; Avalos, Tylka, & Wood-Barcalow, 2005; see Appendix U), which is a 13-item measure rated from 1 (never) to 5 (always), was used as an indicator of positive body image, which includes acceptance of, favourable opinions towards, and respect for one's body (Avalos et al., 2005; Tylka, 2013). A total body appreciation score was calculated by taking the mean of the items. The measure was developed for and psychometrically evaluated in samples of women, with scores on the BAS having established internal consistency reliability and construct validity (e.g., negative associations with weight concern, body surveillance, body shame; Avalos et al., 2005; Tylka, 2013).

3.3.2.4 Emotionally difficult hypothetical scenarios.

Five hypothetical, emotionally difficult, sport-specific scenarios were used in the current study. One scenario was previously used in research (i.e., “*being responsible for a team loss*”; Leary et al., 2007), and the remaining four were developed from the qualitative findings in Study 1 (i.e., failing to meet personal goals and expectations, making mistakes during sport, experiencing an injury, and plateauing). See Appendix V for the hypothetical scenarios. Participants rated the degree to which each scenario was emotionally difficult on a six-point scale ranging from 1 (not at all) to 6 (extremely).

3.3.2.5 Reactions to hypothetical scenarios.

Participants were asked to rate the degree to which they would react to each hypothetical scenario with self-compassion, positivity, perseverance, responsibility, rumination, passivity, and self-criticism on a six-point scale from 1 (not at all) to 6 (extremely). Aside from the four self-compassionate reaction items, which have been used in previous research (i.e., Leary et al., 2007), reactions to the hypothetical scenarios were developed from interviews and focus group discussions with young women athletes in Study 1. Specifically, the reaction items were developed using the language of participants in the qualitative phase of Study 1, with 8-18 items initially developed for each reaction. The use of athlete-generated items (as opposed to researcher-generated items) helps improve the likelihood that the items will be relevant to other athletes (Dunn, Bouffard, & Rogers, 1999). Initial items underwent content review by four

researchers who have experience with constructs related to the self.⁹ As per recommendations by Dunn et al. (1999), the reviewers were deemed appropriate for content review given their expertise and familiarity both with the construct domains under investigation as well as the targeted population (i.e., young women athletes). Content reviewers were asked to rate the degree to which each item matched a conceptual definition of the respective reaction on a scale from 1 (not at all) to 6 (extremely). Positivity was defined as the tendency to view life and experiences with a positive outlook (Caprara et al., 2012); perseverance was defined as the tendency to persist and endure in the face of adversity and the perceived ability to overcome adverse circumstances, including both cognitive and behavioural persistence (Markman, Baron, & Balkin, 2005); responsibility was defined as the ability to identify and regulate one's thoughts, feelings and behaviour, as well as a willingness to hold oneself accountable for the choices made and the social and personal outcomes generated from these choices (Mergler et al., 2007); and, rumination was defined as having an over-identified or repetitive focus on one's experience of distress or negative events (Neff, 2003a). Reviewers were also asked to specify the strongest items for each reaction, as well as provide suggestions to strengthen the wording and content of each item.

Following Dunn et al.'s (1999) protocol, data from the content review underwent content analysis. Aiken's (1985) item content-validity coefficient (V) was used to determine whether an item was relevant to a construct. V can range from 0 to 1, with 1 denoting that all reviewers gave the highest possible rating and 0 indicating that all reviewers gave the lowest possible rating. With four reviewers in the current study, V values were significant at $p < .05$ for $V = .85$ (Aiken, 1985). Applying this criterion, four of 16 positive reaction items were retained, five of 18 perseverant items were retained, five of eight responsible items were retained, and four of 15 ruminative items were retained. Ideally all retained items would have been included to measure each respective reaction; however consideration for participant burden (i.e., participants completed all reaction items after each hypothetical scenario) lead to the pragmatic goal of limiting each reaction to two items. Reaction items were further reduced by taking into consideration reviewers' qualitative feedback, resulting in two items per reaction. See Appendix

⁹ Passive and self-critical reaction items were constructed after the content review. These items were developed based on the language of the participants in Study 2 interviews and focus group discussions.

W for all reaction items used in the current study (i.e., self-compassionate, positive, perseverant, responsible, ruminative, passive, and self-critical reactions).

3.3.3 Procedure.

After obtaining university ethical approval (see Appendix X) and school board approval (see Appendices Y and Z), young women athletes from university classes and high school sport teams were invited to participate in the study. Participants were emailed a secure link to access an online web-based survey. After providing informed consent (see Appendix AA), participants completed basic demographic information (see Appendix BB), general measures of self-compassion and eudaimonic well-being, as well as proxy measures of eudaimonic well-being. Participants were then presented with hypothetical, emotionally difficult, sport scenarios, each of which was followed by self-compassionate, positive, perseverant, responsible, ruminative, and self-critical reaction items.

3.3.3 Data analysis.

Prior to conducting data analyses, composite scores were created for each reaction (i.e., self-compassionate, positive, perseverant, responsible, ruminative, passive, and self-critical) by averaging across the five hypothetical scenarios, resulting in one composite score for each reaction. Normality of the data was assessed by examining histograms of the standardized residuals. Linearity and homoscedasticity were examined through scatterplots of the residuals. Statistical significance was set at $p < .05$ for all analyses.

Pearson bivariate correlations were examined between the proxy measures of eudaimonic well-being and Ryff and Keyes' (1995) SPWB. Correlations were then used to examine the relationships between self-compassion and proxy measures of eudaimonic well-being, as well as between self-compassionate reactions and proxy measures of eudaimonic well-being (Hypotheses 1). Correlations were also used to explore associations between self-compassion, proxy measures of eudaimonic well-being, and the hypothesized mechanism variables (i.e., positive, perseverant, responsible, ruminative, passive, and self-critical reactions), as well as between self-compassionate reactions, proxy measures of eudaimonic well-being, and the hypothesized mechanism variables (Hypotheses 2a).

Preacher and Hayes' (2008) SPSS macro was used to explore the indirect paths in the relationships between self-compassion and each proxy measure of eudaimonic well-being, as well as between self-compassionate reactions and each proxy measure of eudaimonic well-being

(Hypotheses 2b). That is, path models were explored whereby (1) self-compassion (i.e., SCS scores) served as the predictor, and (2) self-compassionate reactions served as the predictor. The macro tested the indirect effects of self-compassion (or self-compassionate reactions) on each proxy measure of eudaimonia through multiple mediators. Specifically, self-compassion (or self-compassionate reactions) was entered as the predictor, a proxy measure of eudaimonic well-being was the criterion, and the reactions were the mediators (i.e., positive, perseverant, responsible, ruminative, and passive reactions). Models were explored with each proxy measure of eudaimonic well-being as the criterion, as well as a model with a composite score of psychological flourishing as the criterion (calculated by creating and averaging across *z*-scores of each proxy measure). The analysis involved two parts: (1) exploring the total indirect effect; and (2) exploring specific indirect effects in the context of a multiple mediator model. For the analysis, 5000 bootstrap samples with replacement were requested. Significance tests for all paths were provided by 95% bias-corrected and accelerated (BCa) bootstrapped confidence intervals (CIs). The macros also provide regression coefficients for the normal theory approach. Figure 3.1 depicts an example of the types of models that were explored.

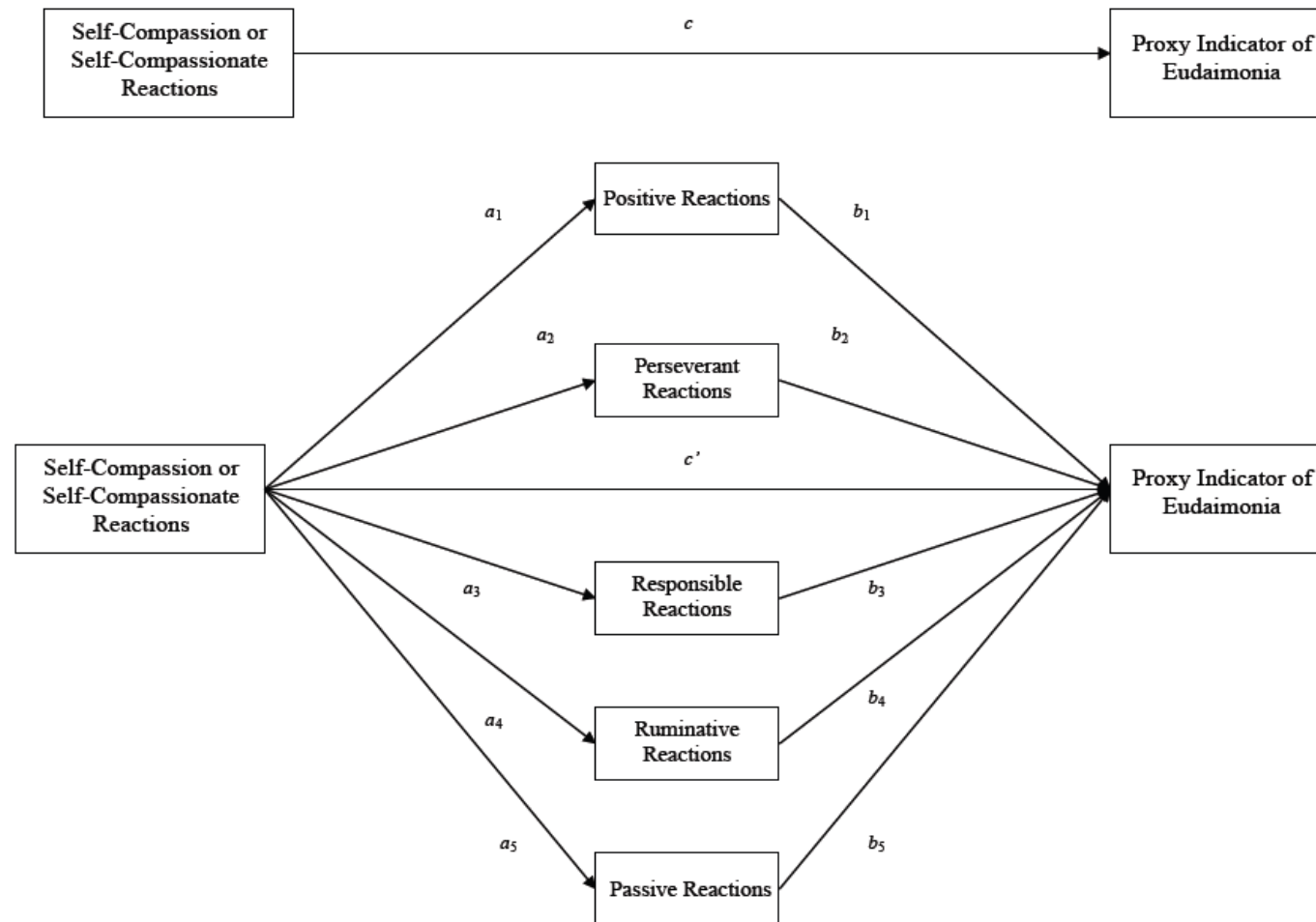
Another set of path models were explored whereby self-critical reactions was entered as the intervening variable between self-compassion (or self-compassionate reactions) and psychological flourishing in sport. These additional models were intended to respond to athletes' concerns in the qualitative phase of Study 1 that being self-compassionate might not always facilitate flourishing in sport as it would reduce self-criticism, which women athletes have noted is an important characteristic in sport (Mosewich, Crocker, & Kowalski, 2013).

3.4 Results

3.4.1 Missing data and evaluation of assumptions.

Prior to statistical analysis, 10 participants were deleted from the data set (originally $N = 147$) due to missing data (i.e., missing more than two data points or missing two data points from the same subscale). Participants with one (38 participants) or two (21 participants) missing data points that were not from the same subscale were retained and within-person mean substitution was used to estimate the missing value (Tabachnick & Fidell, 2007). Seven outliers were identified in the data set and truncated at ± 3.29 standard deviations above or below the mean (Tabachnick & Fidell, 2007). Many scale scores were skewed and/or kurtotic (i.e., five SPWB

Figure 3.1: Illustration of the path models that were explored in Study 2.



Note. The upper panel depicts the total relationship between self-compassion (or self-compassionate reactions) and each proxy indicator of eudaimonic well-being. The lower panel illustrates the hypothesized indirect model between self-compassion (or self-compassionate reactions) and each proxy indicator of eudaimonic well-being through positive, perseverant, responsible, ruminative, and passive reactions.

subscales, five proxy measures of eudaimonic well-being, perseverant reactions, passive reactions); hence, non-parametric distributions were normalized using appropriate data transformations (Tabachnick & Fidell, 2007). All hypothesis testing was carried out on the transformed data. Data were transformed back into original units for presentation of results.

3.4.2 Descriptive statistics and scale reliabilities.

Descriptive statistics and internal consistency scale reliabilities are reported in Table 3.1. Averaged across the five scenarios, the hypothetical scenarios were rated at 4.42 (on a scale from 1 to 6) on emotional difficulty.

3.4.3 Hypothesis testing.

3.4.3.1 Correlations.

As reported in Table 3.2, each proxy measure of eudaimonic well-being was positively correlated with its corresponding subscale from Ryff and Keyes' (1995) SPWB, as well as the SPWB composite score. These findings provide a level of confidence that the chosen measures could serve as proxy indicators of eudaimonic well-being in the current study, given the lack of a validated measure of psychological flourishing in sport.

In partial support of Hypothesis 1, self-compassion (i.e., SCS scores) was correlated with four of six proxy measures of eudaimonic well-being (autonomy $r = .28, p < .01$; personal growth $r = .18, p < .05$; purpose in life $r = .20, p < .05$; self-acceptance $r = .47, p < .01$), as well as the composite score of proxy measures ($r = .35, p < .01$). Unexpectedly, self-compassionate reactions to emotionally difficult sport situations was positively correlated with only one of the proxy measures, self-acceptance ($r = .38, p < .01$). This was even more surprising given the positive correlation between self-compassion and self-compassionate reactions ($r = .53, p < .01$).

Hypothesis 2a was supported inasmuch as *self-compassion* (i.e., SCS scores) was correlated with all reactions to emotionally difficult sport situations in the predicted directions. Partial support was also provided for Hypothesis 2a in that *self-compassionate reactions* was positively correlated with positive ($r = .86, p < .01$) and perseverant reactions ($r = .22, p < .05$), as well as negatively correlated with ruminative ($r = .61, p < .01$), passive ($r = .20, p < .05$), and self-critical reactions ($r = -.71, p < .01$). There were also a number of significant correlations amongst reactions to emotionally difficult sport situations and proxy measures of eudaimonic well-being that supported Hypothesis 2a; for example, both perseverant and responsible reactions were positively correlated with all proxy measures, whereas passive reactions was negatively

Table 3.1: Study 2 descriptive statistics, scale reliabilities, and Pearson product moment correlations for self-compassion, eudaimonic well-being, all reactions, and proxy measures of eudaimonic well-being

Variable	Scale Range	Mean (SD)	1.	2.	3.	4.	5.	6.	7.	8.	9.	10	10a.	10b.	10c.	10d.	10e.	10f.
1. Self-Compassion	1-5	3.02 (0.59)	.83															
2. Eudaimonic Well-Being	1-6	4.53 (0.59)	.64**	.83														
3. Self-Compassionate Reactions	1-6	3.56 (0.85)	.53**	.38**	.93													
4. Positive Reactions	1-6	3.70 (0.91)	.63**	.49**	.86**	.90												
5. Perseverant Reactions	1-6	4.67 (0.76)	.26**	.47**	.22*	.36**	.88											
6. Responsible Reactions	1-6	4.69 (0.79)	.28**	.39**	.10	.30**	.73**	.90										
7. Ruminative Reactions	1-6	3.71 (1.07)	-.50**	-.38**	-.61**	-.55**	-.05	.02	.90									
8. Passive Reactions	1-6	1.32 (0.57)	-.32**	-.42**	-.20*	-.27**	-.50**	-.35**	.26**	.94								
9. Self-Critical Reactions	1-6	3.60 (1.15)	-.53**	-.33**	-.71**	-.56**	.06	.15	.82**	.24**	.93							
10. Proxy Eudaimonic Well-Being ^a	---	0.00 (0.68)	.35**	.52**	.08	.21*	.48**	.44**	-.11	-.45**	-.05	.75						
a. Autonomy	1-7	5.83 (0.85)	.28**	.29**	-.01	.06	.27**	.32**	-.06	-.34**	-.02	.72**	.86					
b. Environmental Mastery	1-4	3.00 (0.62)	.09	.30**	-.05	.08	.34**	.30**	.03	-.22*	.07	.62**	.22*	.83				
c. Personal Growth	1-7	5.87 (1.01)	.18*	.31**	.01	.09	.37**	.36**	.02	-.30**	.06	.80**	.58**	.45**	.94			
d. Positive Relations	1-7	6.07 (0.97)	.16	.29**	-.05	.05	.21*	.22*	-.07	-.26**	.06	.59**	.32**	.22**	.37**	.83		
e. Purpose in Life	1-7	5.87 (1.03)	.20*	.34**	.04	.12	.40**	.29**	-.08	-.30**	-.05	.70**	.50**	.31**	.54**	.23**	.88	
f. Self-Acceptance	1-5	3.63 (0.71)	.47**	.51**	.38**	.43**	.29**	.23**	-.27**	-.38**	-.31**	.52**	.21*	.27**	.22**	.19*	.18*	.92

Note. Degrees of freedom = 135. Reliability α on diagonal. ^aProxy eudaimonic well-being created by taking the mean across all proxy measures'

z-scores. * $p < .05$. ** $p < .01$.

Table 3.2: Study 2 Pearson product moment correlations between eudaimonic well-being and proxy measures of eudaimonic well-being

Variable (Measure)	1.	1a.	1b.	1c.	1d.	1e.	1f.	2.	2a.	2b.	2c.	2d.	2e.
1. Eudaimonic Well-Being (SPWB)	---												
a. Autonomy (SPWB)	.55**	---											
b. Environmental Mastery (SPWB)	.83**	.29**	---										
c. Personal Growth (SPWB)	.76**	.34**	.56**	---									
d. Positive Relations (SPWB)	.71**	.19*	.55**	.42**	---								
e. Purpose in Life (SPWB)	.79**	.25**	.67**	.62**	.46**	---							
f. Self-Acceptance (SPWB)	.85**	.35**	.69**	.62**	.52**	.63**	---						
2. Proxy Eudaimonic Well-Being (z-scores)	.52**	.35**	.43**	.40**	.38**	.30**	.48**	---					
a. Autonomy (BNSSS - Autonomy)	.29**	.24**	.23**	.21*	.24**	.14	.23**	.72**	---				
b. Environmental Mastery (PSPP-R)	.30**	.15	.28**	.22**	.28**	.23**	.23**	.62**	.22*	---			
c. Personal Growth (SoMS)	.31**	.24**	.27**	.23**	.16	.21*	.31**	.80**	.58**	.45**	---		
d. Positive Relations (BNSSS - Relatedness)	.30**	.06	.23**	.24**	.39**	.14	.29**	.59**	.32**	.22**	.37**	---	
e. Purpose in Life (SVS)	.34**	.36**	.26**	.28**	.18*	.19*	.24**	.70**	.50**	.31**	.54**	.23**	---
f. Self-Acceptance (BAS)	.51**	.33**	.44**	.38**	.26**	.30**	.57**	.52**	.21*	.27**	.22**	.19*	.18*

Note. Degrees of freedom = 135. *SPWB* = Scales of Psychological Well-Being. *BNSSS* = Basic Need Satisfaction in Sport Scale. *PSPP-R* = Revised Physical Self-Perception Profile. *SoMS* = Sense of Meaning Scale. *SVS* = Subjective Vitality Scale. *BAS* = Body Appreciation Scale.

* $p < .05$. ** $p < .01$.

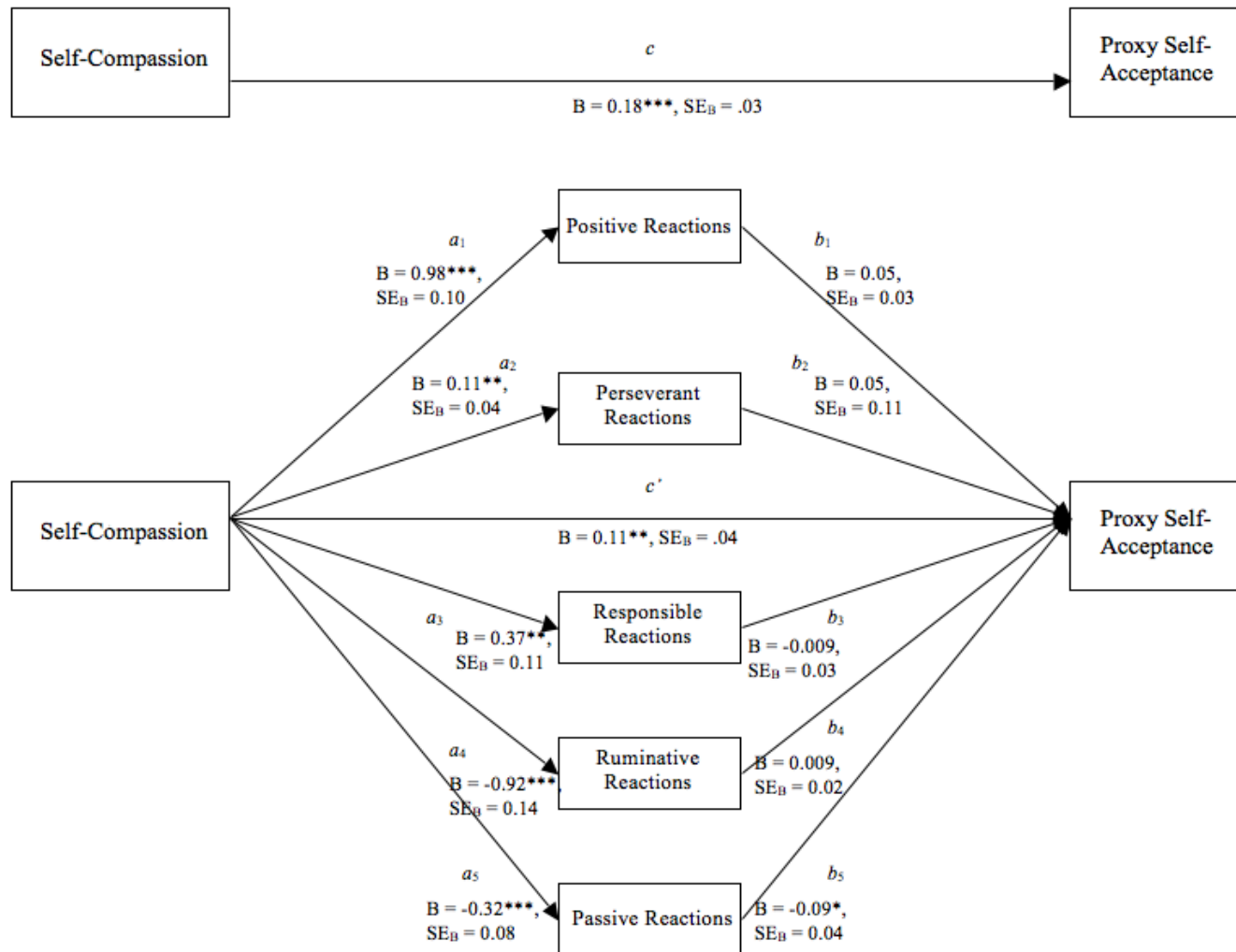
correlated with all proxy measures. In addition, positive reactions was positively correlated with the proxy measure of self-acceptance ($r = .43, p < .01$) and the composite score of proxy measures ($r = .21, p < .05$); ruminative reactions was negatively correlated with the proxy measure of self-acceptance ($r = -.27, p < .01$); and, self-critical reactions was negatively correlated with the proxy measure of self-acceptance ($r = -.31, p < .01$). Correlations are presented in Table 3.1.

3.4.3.2 Path model analyses.

Some support was provided for hypothesis 2b, particularly in the model whereby *self-compassion* predicted the proxy measure of self-acceptance. Specifically, the total effect of self-compassion on proxy self-acceptance was $B = .18, p < .001$, and the direct effect was $B = .11, p < .01$. The total indirect effect of self-compassion on proxy self-acceptance through the five hypothesized process variables (i.e., positive, perseverant, responsible, ruminative, and passive reactions) had a point estimate of .07 with a 95% BCa bootstrapped CI of 0.02 to 0.14. Therefore, the data were consistent with a model of multiple mediation whereby, as a set, positive, perseverant, responsible, ruminative, and passive reactions are potential mediators of the self-compassion–proxy self-acceptance relationship. There were also specific indirect effects through positive (.05) and passive reactions (.03). The model explained 31% of the variance in proxy self-acceptance. Figure 3.2 shows the path model of self-compassion on proxy self-acceptance, and includes unstandardized coefficients for all paths in the model. The upper panel of Figure 3.2 represents the total relationship between self-compassion and proxy self-acceptance, and the lower panel illustrates the model of indirect effects. Four of the other models examined had total effects of self-compassion on proxy measures of eudaimonic well-being (i.e., autonomy, personal growth, purpose in life, composite eudaimonic well-being), two of which also had direct effects while controlling for the five process variables (i.e., autonomy, composite eudaimonic well-being) as well as specific indirect effects (i.e., through positive and passive reactions for autonomy; through perseverant reactions for the composite). However, none of the other models had total indirect effects.

The data were once again consistent with a model of multiple mediation in the model whereby *self-compassionate reactions* predicted the proxy measure of self-acceptance. Specifically, the total effect of self-compassionate reactions on proxy self-acceptance was $B = .10, p < .001$, and the total indirect effect through the five process variables had a point estimate

Figure 3.2: The path model of self-compassion on proxy self-acceptance in Study 2.



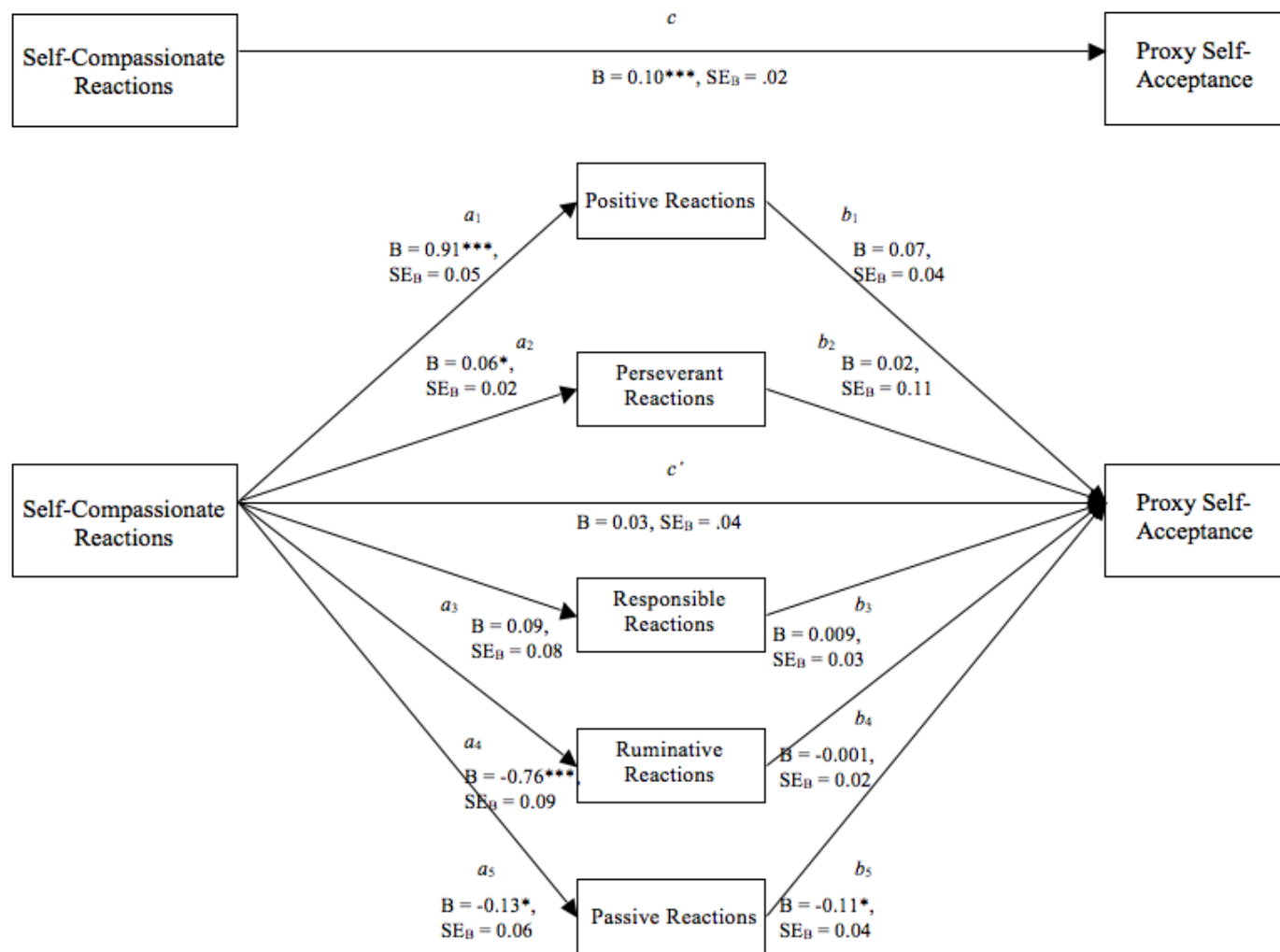
Note. The *c* coefficient represents the total relationship between self-compassion and proxy self-acceptance. The *c'* coefficient represents the strength of the association between self-compassion and proxy self-acceptance after controlling for the five indirect paths. The *a* and *b* paths represent the specific indirect paths involving the hypothesized mediators. * $p < .05$. ** $p < .01$. *** $p < .001$.

of .08 with a 95% BCa bootstrapped CI of 0.01 to 0.15. Therefore, as a set, positive, perseverant, responsible, ruminative, and passive reactions are potential mediators of the self-compassionate reactions–proxy self-acceptance relationship. There was also a specific indirect effect through passive reactions (.02), and the model explained 26% of the variance in proxy self-acceptance. Figure 3.3 shows the path model of self-compassionate reactions on proxy self-acceptance. None of the other path models in which self-compassionate reactions served as the predictor had total, direct, or total indirect effects on proxy measures of eudaimonic well-being. Table 3.3 summarizes the significant findings from all path models when both self-compassion and self-compassionate reactions served as the predictor.¹⁰

To examine whether the diminished self-criticism associated with self-compassion would thwart flourishing in sport, a final set of models were explored that looked at (1) the effect of *self-compassion* on proxy measures of eudaimonic well-being through self-critical reactions to emotionally difficult situations in sport, and (2) the effect of *self-compassionate reactions* on proxy measures of eudaimonic well-being through self-critical reactions. The data were consistent with models of indirect effects with self-criticism emerging as a suppressor variable when self-compassion predicted proxy personal growth and proxy positive relations with others. The total effect of self-compassion on the proxy measure of personal growth was $B = .06, p < .05$, and the direct effect was $B = .10, p < .01$. The indirect effect of self-compassion on proxy personal growth through self-criticism had a point estimate of $-.04$ with a 95% BCa bootstrapped CI of -0.08 to -0.003 . The model explained 7% of the variance in proxy personal growth (see Figure 3.4). As for proxy positive relations with others, self-compassion had a direct ($B = .45, p < .01$) and indirect effect through self-critical reactions ($-.18$ with a 95% BCa bootstrapped CI of -0.32 to -0.04), and the model explained 6% of the variance in proxy positive relatedness (see Figure 3.5). Evidence of suppression stems from (1) the direct effects being larger than the total effects, and (2) the indirect effects having the opposite sign (i.e., negative) than the direct effects (i.e., positive; MacKinnon, Krull, & Lockwood, 2000; Shrout & Bolger, 2002). None of the models in which self-compassionate reactions served as the predictor had significant indirect effects through self-critical reactions. Table 3.4 summarizes the significant findings from the

¹⁰ As indicated in Table 3.3, there were other instances where the data appear to be consistent with models of mediation. Namely, when self-compassion (i.e., SCS scores) predicted autonomy, purpose in life, and the composite eudaimonic well-being. Figures for these significant path models are presented in Appendix CC.

Figure 3.3: The path model of self-compassionate reactions on proxy self-acceptance in Study 2.



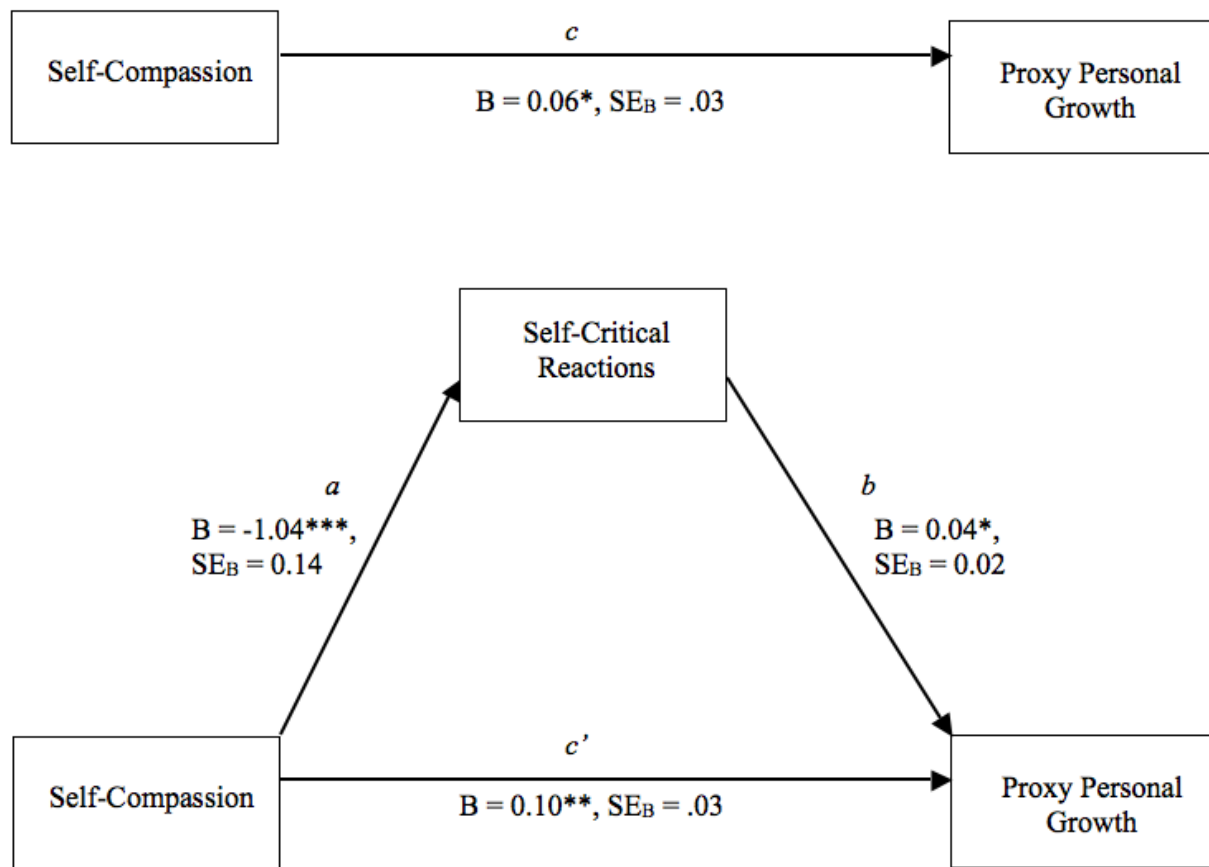
Note. The c coefficient represents the total relationship between self-compassionate reactions and proxy self-acceptance. The c' coefficient represents the strength of the association between self-compassionate reactions and proxy self-acceptance after controlling for the five indirect paths. The a and b paths represent the specific indirect paths involving the hypothesized mediators. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.3: Study 2 summary of significant findings from the path models examining the relationships between self-compassion and self-compassionate reactions with proxy measures of eudaimonic well-being through positive, perseverant, responsible, ruminative, and passive reactions to emotionally difficult situations in sport

Predictor	Criterion ^a	Total Effect	Direct Effect	Total Indirect Effect	Specific Indirect Effects ^b					<i>R</i>
					Positive Reactions	Perseverant Reactions	Responsible Reactions	Ruminative Reactions	Passive Reactions	
Self-Compassion	Autonomy	B = .08	B = .08	---	.05 (.02)	---	---	---	.02 (.01)	.22
Self-Compassionate Reactions		---	---	---	---	---	---	---	.01 (.00)	.17
Self-Compassion	Environmental Mastery	---	---	---	---	.02 (.01)	---	---	---	.13
Self-Compassionate Reactions		---	---	---	---	---	---	---	---	.15
Self-Compassion	Personal Growth	B = .06	---	---	---	---	---	---	---	.19
Self-Compassionate Reactions		---	---	---	---	---	---	---	---	.18
Self-Compassion	Positive Relations	---	---	---	---	---	---	---	---	.10
Self-Compassionate Reactions		---	---	---	---	---	---	---	---	.12
Self-Compassion	Purpose in Life	B = .07	---	---	---	.03 (.01)	---	---	---	.19
Self-Compassionate Reactions		---	---	---	---	.02 (.01)	---	---	---	.18
Self-Compassion	Self-Acceptance	B = .18	B = .11	.07 (.03)	.05 (.03)	---	---	---	.03 (.01)	.31
Self-Compassionate Reactions		B = .10	---	.08 (.04)	---	---	---	---	.02 (.00)	.26
Self-Compassion	Composite Eudaimonic Well-Being	B = .39	B = .31	---	---	.07 (.04)	---	---	---	.35
Self-Compassionate Reactions		---	---	---	---	---	---	---	.04 (.03)	.32

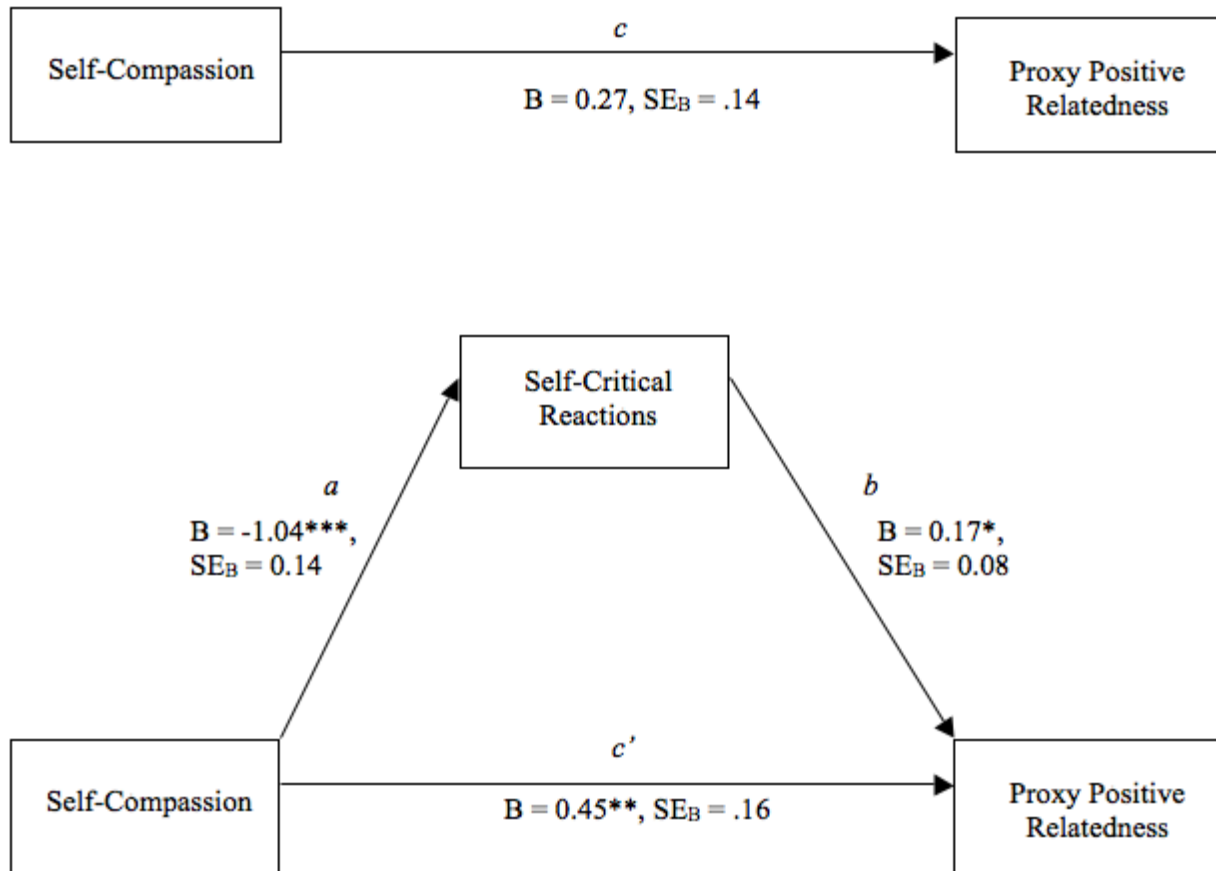
Note. ^aProxy measures of eudaimonic well-being. ^bPoint estimate (standard error) within 95% bias corrected and accelerated bootstrapped confidence interval.

Figure 3.4: The path model of self-compassion on proxy personal growth through self-critical reactions in Study 2.



Note. The c coefficient represents the total relationship between self-compassion and proxy personal growth. The c' coefficient represents the strength of the association between self-compassion and proxy personal growth after controlling for self-critical reactions. The a and b paths represent the specific indirect paths involving self-critical reactions. * $p < .05$. ** $p < .01$. *** $p < .001$.

Figure 3.5: The path model of self-compassion on proxy positive relatedness through self-critical reactions in Study 2.



Note. The *c* coefficient represents the total relationship between self-compassion and proxy positive relatedness. The *c'* coefficient represents the strength of the association between self-compassion and proxy positive relatedness after controlling for self-critical reactions. The *a* and *b* paths represent the specific indirect paths involving self-critical reactions. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.4: Study 2 summary of significant findings from the path models examining the relationships between self-compassion and self-compassionate reactions with proxy measures of eudaimonic well-being through self-critical reactions to emotionally difficult situations in sport

Predictor	Criterion ^a	Total Effect	Direct Effect	Indirect Effect (Self-Critical Reactions ^b)	R
Self-Compassion	Autonomy	B = .07	B = .10	---	.10
Self-Compassionate Reactions		---	---	---	---
Self-Compassion	Environmental Mastery	---	---	---	---
Self-Compassionate Reactions		---	---	---	---
Self-Compassion	Personal Growth	B = .06	B = .10	-.04 (.02)	.07
Self-Compassionate Reactions		---	---	---	---
Self-Compassion	Positive Relations	---	B = .45	-.18 (.07)	.06
Self-Compassionate Reactions		---	---	---	---
Self-Compassion	Purpose in Life	B = .07	B = .08	---	.04
Self-Compassionate Reactions		---	---	---	---
Self-Compassion	Self-Acceptance	B = .18	B = .17	---	.23
Self-Compassionate Reactions		B = .10	B = .09	---	.15
Self-Compassion	Composite Eudaimonic Well-Being	B = .40	B = .51	---	.15
Self-Compassionate Reactions		---	---	---	---

Note. ^aProxy measures of eudaimonic well-being. ^bPoint estimate (standard error) within 95% bias corrected and accelerated bootstrapped confidence interval.

path models in which self-critical reactions was explored as an intervening variable. A summary of all study findings in relation to hypotheses appears in Table 3.5.

3.5 Discussion

This study provides evidence for the relationship between self-compassion and eudaimonic well-being, contextualized to the sport domain. Significant relationships were found among self-compassion, self-compassionate reactions, proxy measures of eudaimonic well-being (i.e., indicators that are specific or relevant to sport), and reactions to emotionally difficult sport situations. Interpretation of significant relationships points to three general findings. First, associations between self-compassion and proxy indicators of eudaimonic well-being suggest that self-compassionate athletes are autonomous, experience greater meaning and vitality in one's sport pursuits, and have appreciation for one's body. Second, self-compassionate athletes have greater "constructive reactions" (i.e., positive, perseverant, and responsible reactions) to emotionally difficult situations in sport. Third, self-compassionate athletes have lower "destructive reactions" (i.e., ruminative, passive, and self-critical reactions) to emotionally difficult situations in sport. These findings speak to the relevance of self-compassion for young women athletes' psychological flourishing in sport, and provide insight as to how self-compassionate athletes might respond when confronted with difficult experiences in sport.

The findings are consistent with previous claims that self-compassionate people deal with challenging life events more effectively than people low in self-compassion by ruminating less on their hardships, not harshly criticizing the self, and accepting responsibility for negative life events (Leary et al., 2007; Neff, 2003a, 2003b; Neff, Kirkpatrick, et al., 2007). The current study advances these claims by suggesting that self-compassionate athletes are likely to respond to emotionally difficult sport situations with a positive mindset, wanting to overcome their hardships and taking responsibility to do so, as well as dwelling less on their struggles and not giving up. Moreover, relationships with self-compassion and proxy measures of eudaimonic well-being suggest that these sorts of reactions might be important variables in understanding the role of self-compassion in eudaimonic well-being in sport.

A number of path models were explored in the current study, and the data were consistent with a model of multiple mediation in that self-compassion predicted proxy self-acceptance with all reactions (i.e., positive, perseverant, responsible, ruminative, and passive), as a set, emerging as potential process variables. Evidence also emerged for specific indirect effects through

Table 3.5: Summary of Study 2 findings

	Hypothesis 1	Hypothesis 2a	Hypothesis 2b
	Partial support	Substantial support	Partial support
Self-Compassion	Positive correlations with four of six proxy measures of eudaimonia and the composite measure.	Significant correlations with all reaction measures in the anticipated directions.	Data consistent with models of mediation in four models explored. Evidence of suppression in two models explored.
	Minimal support	Substantial support	Minimal support
Self-Compassionate Reactions	Positive correlation with one of six proxy measures of eudaimonia.	Significant correlations with all but one reaction measure in the anticipated directions.	Data consistent with one model of mediation.

Note. *Hypothesis 1* = self-compassion/self-compassionate reactions would be positively related to psychological flourishing in sport. *Hypothesis 2a* = self-compassion/self-compassionate reactions and psychological flourishing in sport would be positively related to positive, perseverant, and responsible reactions to emotionally difficult sport situations, and negatively related to ruminative, passive, and self-critical reactions. *Hypothesis 2b* = the relationships between self-compassion/self-compassionate reactions and psychological flourishing in sport would be consistent with models of mediation, with positive, perseverant, responsible, ruminative, passive, and self-critical reactions serving as plausible mechanism variables.

increased positive reactions to emotionally difficult sport situations and decreased passivity to those experiences. Evidence for decreased passivity as a process by which self-compassion is related to proxy self-acceptance is an important finding, as it contributes to the ongoing discussion in the literature regarding concerns of self-compassion leading to inaction or complacency. Despite athletes' hesitations in the qualitative phase of Study 1 that being self-compassionate might lead to a standstill in sport, findings from the current study support the view that self-compassion counteracts complacency and promotes action towards promoting well-being (Neff, 2003a).

Assessing proxy self-acceptance as body appreciation in the current study advances previous research by Wasyliw, MacKinnon, and MacLellan (2012), who found that self-compassionate women had greater appreciation for their bodies, by providing insight as to how or why self-compassion might be related to body appreciation. Conceptually, my findings suggest that athletes who extend compassion toward the self are less likely to give up and more likely to have a positive frame of mind when confronted with emotionally difficult situations in sport (e.g., an injury), allowing them to appreciate and respect their physical self. Berry et al. (2010) proposed "body self-compassion" (i.e., having a kind, understanding, and nonjudgmental attitude extended towards one's body in response to perceived physical imperfections, limitations, and failures) as a sub-domain of self-compassion that might be relevant to those within highly evaluative environments. Thus, in tandem with previous research by Wasyliw et al. and Berry et al., findings from the current study suggest that self-compassion might be particularly beneficial for young women athletes as a way to garner positive and affiliative attitudes towards one's body during emotionally difficult or evaluative experiences.

Although recent research by Mosewich, Crocker, and Kowalski (2013) and qualitative findings from Study 1 highlight athletes' reliance on self-criticism in sport, results from the current study suggest that reacting self-critically to emotionally difficult sport situations is not associated with increased eudaimonic well-being in sport. Self-critical reactions was negatively related to proxy self-acceptance, which, given the assessment of self-acceptance as body appreciation, suggests that reacting self-critically to emotionally difficult sport situations is linked with lower appreciation for one's body. No other significant associations were found between self-critical reactions and all other proxy measures of eudaimonic well-being. Although

reacting self-critically to hypothetical, emotionally difficult, sport scenarios was, for the most part, not associated with increased or decreased eudaimonia in sport, athletes' reliance on self-criticism should be considered in future research due to the potential consequences of harsh self-criticism in sport (e.g., Krane et al., 2004).

Significant path models in which self-critical reactions was explored within the relationship between self-compassion and proxy indicators of eudaimonic well-being suggest that self-criticism might be a suppressor variable. Although suppression was not anticipated (Shrout & Bolger, 2002), the data suggest that the relationship between self-compassion and psychological flourishing in sport (i.e., proxy personal growth and proxy positive relations with others) might be suppressed by a competing process; self-criticism. Put another way, the relationships are stronger when self-criticism is controlled. Findings from the current study therefore contradict the importance some athletes place on being self-critical in sport (Mosewich, Crocker, & Kowalski, 2013) and supports previous findings by Powers et al. (2009) that self-critical athletes have diminished goal-related activity and emotional well-being.

A number of hypothesized relationships and paths in the models explored were not statistically significant. Two perspectives might help explain these non-significant results. First, the non-significant findings could be an artifact of measurement challenges in the current study. Although planning, time, and effort were invested to best assess study constructs, the lack of sport-specific reaction and eudaimonia measures might have influenced study findings. For example, while there was theoretical and empirical justification to consider responsible and ruminative reactions as potential processes between self-compassion and eudaimonic well-being, specific indirect effects did not emerge for these constructs in the path models that were explored. It is possible that the reactions measures did not accurately assess responsibility and rumination, which might explain the lack of statistical significance. Other than the self-compassionate reactions items, which have been used in previous research (Leary et al., 2007), reaction items had to be developed for the current study. Although items were athlete-generated, a content review analysis was employed, and there was evidence of internal consistency across the hypothetical scenarios (α s = .88 to .94), the lack of psychometrically validated reaction measures is a noted limitation that might explain non-significant findings in the current study.

Another measurement limitation within the current study – and the wider body of literature on athletes' well-being – is the lack of a model of eudaimonic well-being in sport.

Although significant relationships between Ryff and Keyes' (1995) SPWB and proxy measures of eudaimonic well-being provided a level of confidence for measures used in the current study, a conceptual framework and measure of flourishing in sport is needed (Lundqvist, 2011). The current study responded to Lundqvist's (2011) recommendation that researchers consider more context-specific forms of well-being, and explicitly define the level (i.e., global or domain-specific) of well-being on which the construct is investigated. Proxy measures of eudaimonic well-being that were specific/relevant to sport were used in an attempt to provide a more accurate estimate of athletes' well-being in sport rather than rely purely on global estimations of well-being. However, the measures that were selected might not have been exemplar instruments of their respective dimension of eudaimonia in the sport domain. An important direction for future research is to develop a conceptual model of eudaimonic well-being in sport.

The second approach to understanding the non-significant results in the current study is that perhaps some of the hypothesized relationships and proposed path models do not exist. Despite my hypotheses being grounded in the literature and stemming from findings in Study 1 – including evidence of trait-level associations – some of the expected relationships might not occur in the context of sport. For example, there were no significant associations between *self-compassionate reactions* and five of six proxy indicators of eudaimonic well-being in sport. These non-significant findings suggest that reacting to emotionally painful sport situations in a loving and kind manner is not related to feeling autonomous, in control, or having meaning and vitality in sport. More research is certainly needed to understand self-compassion and eudaimonic well-being specifically within the context of sport; however, a theoretical explanation for some of the non-significant study findings might stem from considering the conceptualization of self-compassion in sport.

Given the pattern of findings from correlations and path models, the results suggest that having a general self-compassionate attitude might be key for young women athletes' psychological flourishing in sport as opposed to reacting self-compassionately to specific sport situations per se. Although self-compassion (i.e., SCS scores) and self-compassionate reactions were positively related, *self-compassion* was related to more proxy measures of eudaimonic well-being than were *self-compassionate reactions*, with the latter only associated with body appreciation. Neff (2003a, 2003b, 2004) originally conceptualized and measured self-compassion via the SCS as a trait that reflects a healthy way of relating to oneself. A fairly large

body of research has used the SCS and supports links between self-compassionate individuals and a variety of mental health indices such as less depression and anxiety, as well as greater emotional intelligence and life satisfaction (Neff, 2003a, 2009; Neff, Kirkpatrick, et al., 2007; Neff, Rude, et al., 2007). There is, however, research that speaks to the state-like features of self-compassion by inducing a self-compassionate state and measuring malleable self-compassionate reactions to life events (Leary et al., 2007; Neff, Kirkpatrick, et al., 2007; Terry et al., 2013). The current study essentially included *both* conceptualizations of self-compassion by assessing trait self-compassion via the SCS, as well as the more state-like self-compassionate reactions to emotionally difficult sport situations; thus, this study contributes to the self-compassion literature by working to better understand the construct of self-compassion. Findings have potential implications on the way self-compassion might best be viewed for young women athletes' optimal psychological functioning in sport. That is, young women athletes with a more kind and loving self-attitude in general might be better equipped to flourish when encountering emotionally difficult experiences in sport.

In addition to measurement limitations in the current study, further methodological challenges can be improved upon in future research. Using hypothetical as opposed to recalled sport situations poses a potential concern, as recalled situations would assuredly be relevant and more detailed, thus potentially more “emotionally difficult”. However, using hypothetical scenarios provided a level of systematic consistency that would not have been possible had participants recalled their own personal situations. In addition, the situations used in the current study received an average rating of 4.42 (on a scale from 1 to 6) on emotional difficulty suggesting they were salient to athletes, which is not surprising given that they were based primarily on the qualitative findings of Study 1. Future research might consider exploring the role of self-compassion in neutral or even positive sport situations, as Terry et al. (2013) recently found that self-compassion may be beneficial even when things are going well. Research that explores the relationship between self-compassion and eudaimonic well-being in instances when athletes are fairing well might further our understanding of the potential usefulness of self-compassion in sport. If being self-compassionate is associated with positive outcomes even when athletes are not experiencing negative events, this would provide further support for the usefulness of having a loving and kind self-attitude in general.

Given the cross-sectional study design, it is important that study findings be interpreted as correlational and not causal. The study examined path models to begin to understand the processes that might explain why self-compassion is related to psychological flourishing within sport. The data were consistent with models of mediation; however, the findings are suggestive and not indicative of mediation. Self-compassion is likely related to various outcomes and behaviours via different processes (Terry et al., 2013), meaning that it is important to examine relations among plausible mechanisms rather than preemptively conduct research with advanced designs that more definitively test for mediation. As such, it was important to explore associations between self-compassion, eudaimonic well-being in sport, and reactions to emotionally difficult sport scenarios, as evidence had not yet existed to support patterns of relationships among these variables. Providing evidence for the existence of relationships in a timely and economical fashion might be worthwhile prior to conducting resource-demanding studies (Brown, Cozby, Kee, & Worden, 1999). Findings from the path models considered in the current study could serve as a framework for future research by generating hypotheses about causal relationships and plausible mediators (Bauman, Sallis, Dzewaltowski, & Owen, 2002). After finding support for many of the relations explored and beginning to understand how self-compassionate athletes might respond to emotionally difficult sport situations, future studies that implement longitudinal and/or experimental methods can be better informed to examine how self-compassion might facilitate young women athletes' eudaimonic well-being in sport.

Chapter 4: General Discussion

4.1 Progression of Research

My research progressed in a complementary manner, with each successive study phase or study building on findings from the previous. The quantitative phase of Study 1 was grounded in theoretical and empirical support from the self-compassion and eudaimonic well-being bodies of literature, and, although it was not contextualized to the sport domain, was a critical first step to explore the link between self-compassion and eudaimonic well-being; a relationship that had not previously been examined. Given the lack of a sport-specific model and sport-specific measure of eudaimonic well-being, it was also important to accumulate evidence for Ryff's (1989, 1995) conceptual model of eudaimonic well-being, as proxy measures of the SPWB would later be implemented when exploring the self-compassion–eudaimonic well-being relationship at the contextual level of sport (i.e., Study 2).

After finding a relationship between self-compassion and eudaimonic well-being, as well as gaining preliminary evidence as to why self-compassionate athletes might have greater eudaimonic well-being, I built on these quantitative links to more specifically explore self-compassion and eudaimonic well-being within the sport domain. Specifically, the qualitative phase of Study 1 contextualized my main constructs to sport by exploring whether self-compassion might be useful in young women athletes' sport experiences and how it might contribute to reaching their potential in sport. By gaining insight into the athletes' understandings of and experiences with self-compassion and eudaimonic well-being specifically within sport, the qualitative phase supported the relevance of these constructs to young women athletes' sport experiences, and encouraged moving forward to better understand the role of self-compassion in psychological flourishing in sport.

Study 2 expanded on the quantitative and qualitative phases of Study 1 in at least four important ways. First, Study 2 contextualized self-compassion, eudaimonic well-being, and proposed path models to the sport domain. In doing so, Study 2 extended quantitative findings from Study 1 and ultimately advanced my research by replicating trait-level associations to the sport context. Some of the variables explored in the path models in Study 2 were similar to those in the quantitative phase of Study 1 (e.g., passivity, responsibility), which provided a level of assurance that my research was appropriately grounded in the literature. However, an important advancement of Study 2 was exploring possible paths by which self-compassion is related to

eudaimonic well-being in sport, which was done by incorporating novel constructs that were athlete-generated (i.e., developed directly from Study 1 qualitative findings) and contextualized to sport. Given that self-compassion might be related to various outcomes and behaviours for different reasons (Terry et al., 2013), it was important to be open to exploring different processes involved in the self-compassion–eudaimonic well-being relationship at the sport level in Study 2 than what was originally considered at the trait level in the quantitative phase of Study 1. MacKinnon (2008) identified six ways in which possible mediators are identified, and the progression of my research included two of his noted strategies. First, MacKinnon noted that mediators are often selected on the basis of conceptual theory and review of research literature on a topic. The variables explored as possible mediators in Study 1 were identified through careful consideration of and familiarity with self-compassion and eudaimonic well-being bodies of literature. Second, MacKinnon identified qualitative research as a useful means to identify mediating variables. Results from qualitative interviews and focus groups in Study 1 provided a basis for selecting – and measuring – potential mediating variables in Study 2.

The second way that Study 2 expanded on Study 1 was by incorporating a somewhat more applied design through the use of hypothetical, emotionally difficult, sport-specific scenarios. This was an important advancement in my research as it further contextualized self-compassion and eudaimonic well-being within athletes’ sport experiences. By taking an applied, albeit hypothetical, approach I was able to examine relationships between self-compassion, eudaimonic well-being in sport, and potential process variables in reaction to emotionally difficult sport scenarios. Study 2 findings are particularly insightful as they can inform future research as to how self-compassionate athletes might react to these types of situations. Notably, the hypothetical scenarios were developed directly from qualitative findings in Study 1, which once again highlights the complementary progression of my program of research.

Third, Study 2 went beyond the trait-level assessment of self-compassion that was used in the quantitative phase of Study 1, and incorporated the measurement of self-compassionate reactions. Following the lead of Leary et al. (2007), assessing young women athletes’ self-compassionate reactions to sport-specific scenarios provided for a more state-level approach to self-compassion in sport. Measuring self-compassionate reactions proved to be an important inclusion in Study 2 as it allowed for consideration as to which conceptualization of self-compassion might be best for young women athletes’ eudaimonic well-being in sport. Although

the findings are restricted to the confines of a cross-sectional design and further research is needed in this area, the number of positive relationships between general self-compassion (i.e., SCS scores) and proxy indices of eudaimonic well-being suggest that generally relating to the self compassionately is at least linked with flourishing in sport.

The fourth way in which Study 2 expanded on Study 1 was by examining the specific dimensions of eudaimonic well-being. Rather than focus merely on a composite indicator of psychological flourishing in sport, which was better suited for the global evaluation of self-compassion and eudaimonic well-being in the quantitative phase of Study 1, indicators of each eudaimonic well-being dimension were identified and used as proxy measures of flourishing in sport. Looking at the dimensions of eudaimonia via proxy indicators allowed for nuances in the relationship between self-compassion and the various dimensions to emerge in Study 2; subtleties that might have otherwise been missed. In addition, focusing on the dimensions of eudaimonic well-being acknowledged the breadth of psychological flourishing in sport and further narrowed the focus of my research to the context of sport.

4.2 Interpretation of Research Findings

4.2.1 The relationship between self-compassion and eudaimonic well-being in sport.

Overall, my research provided insight into the role of self-compassion in young women athletes' psychological flourishing. Self-compassionate athletes were found to have greater eudaimonic well-being, both at the trait-level and sport-specific level, which extends previous findings that self-compassion is associated with psychological well-being (Neff, 2003a, 2009; Neff, Kirkpatrick, et al., 2007). My research furthers the promise of self-compassion for young women athletes put forth by Mosewich and colleagues (Mosewich, Crocker, & Kowalski, 2013; Mosewich, Crocker, Kowalski, & DeLongis, 2013; Mosewich et al., 2011), and contributes to a growing body of literature that speaks to the protective and reparative functions that go along with having a loving and kind self-attitude (Leary et al., 2007; Neff, 2003b, 2009).

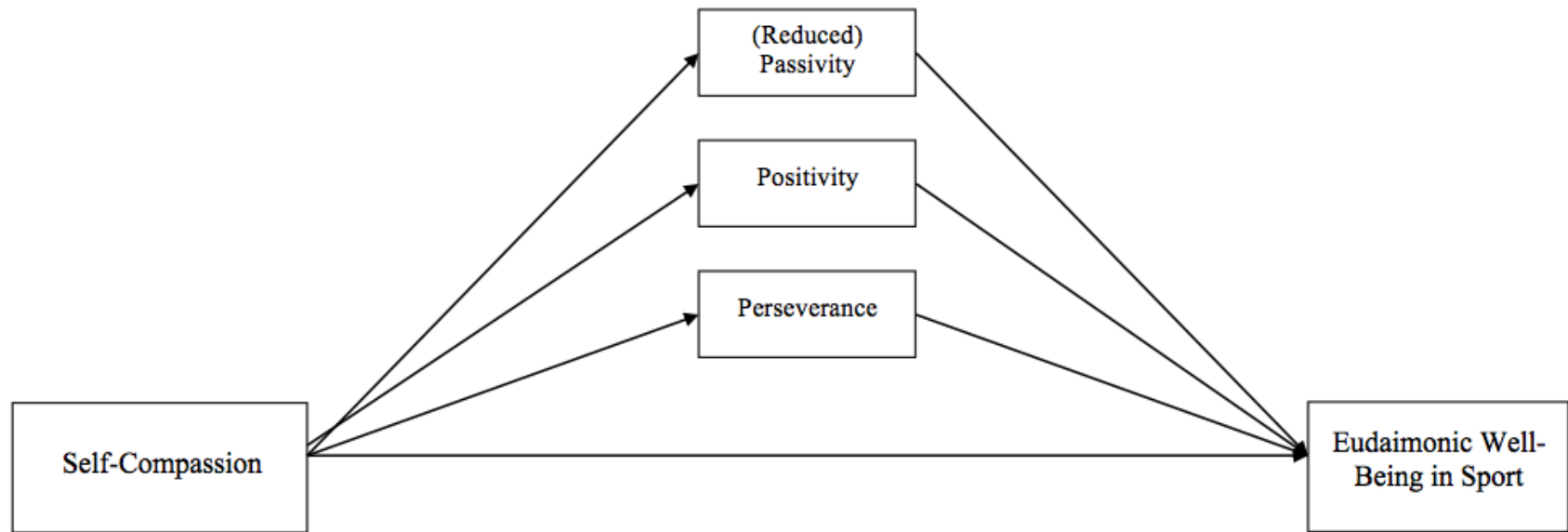
In addition to empirically supporting the link between self-compassion and eudaimonic well-being at the trait level (i.e., Study 1 quantitative phase and Study 2), my research findings included positive relationships between self-compassion and proxy measures of eudaimonia that were intended to assess psychological flourishing in sport (i.e., Study 2). For example, self-compassion was related to the proxy indicator of autonomy in sport. Realizing that the outcomes of their choices would be met with self-kindness, and being motivated by self-kindness to begin

with (Neff, 2003a, 2003b, 2009), self-compassionate athletes might have a greater sense of personal choice, volition, and an internal locus of control in their sport experiences. Other significant relationships included self-compassion with meaning in sport and subjective vitality, which were the proxy indices of personal growth and purpose in life, respectively. My findings suggest that being self-compassionate might enable athletes to see their sport experiences as valuable, precious, and significant, which supports the claim that feeling compassion for oneself might help individuals find hope and meaning (e.g., Neff, Rude, et al., 2007). Self-compassion was also related to body appreciation, which was the proxy indicator of self-acceptance. Interpretation of this relationship implies that athletes with greater self-compassion also have greater respect for their bodies, are more accepting of their physical flaws and imperfections, and have greater appreciation for their physical selves, which has been supported in previous research (Wasyliw et al., 2012). These are important contributions to the self-compassion in sport literature, as they suggest that having a compassionate self-attitude is associated with the tradition of well-being that is reflective of active pursuits and achievement of goals (Chatzisarantis & Hagger, 2007). Although directionality of study variables has not been established, the basis for these relationships was grounded in theoretical and empirical evidence that served as a foundation for my program of research.

4.2.2 A conceptual framework of self-compassion and eudaimonic well-being

My mixed methods program of research provides insight as to *how* self-compassion is related to psychological flourishing in sport. The evidence I have accumulated through qualitative and quantitative strategies of inquiry can be articulated as a conceptual framework that might be useful for future research in this area. Although the limitations to my research (which are discussed in a later sub-section) preclude me from illustrating a definitive model of mediation, I am proposing the most plausible model for future research to examine at this point. Specifically, insight gained through (1) significant indirect effects in path model analyses, and (2) the perspectives of young women athletes suggest that self-compassion might be linked with sport-specific eudaimonic well-being through (reduced) passivity, positivity, and perseverance (see Figure 4.1). Decreased passivity, in particular, emerged as a potential process variable in Study 1 and Study 2. Conceptually, this finding suggests that self-compassionate athletes are less likely to be complacent, give up, or quit trying when confronted with difficult experiences, which might be critical to facilitate striving towards flourishing in sport. Support for decreased

Figure 4.1: Illustration of the conceptual model for the relationship between self-compassion and psychological flourishing in sport.



passivity as a potential mechanism by which self-compassion is linked with eudaimonic well-being is a meaningful finding as it directly addresses the concern that has been recognized in the literature about whether self-compassion might lead to inaction and passivity (Neff, 2003a, 2009; Neff, Kirkpatrick, et al., 2007). If being self-compassionate leads to complacency, this would be detrimental to the achievement of many sport-related goals for women, not to mention the fulfillment of their potential. My research, however, supports Neff's (2003b) position that genuine feelings of self-compassion should not lead to passivity. As Neff (2009) has discussed, self-compassionate individuals care about themselves and want to engage in behaviours and actions to better themselves.

Qualitative findings from Study 1 and results from the path model analyses in Study 2 (i.e., specific indirect effects) suggest that self-compassion might also facilitate a positive response towards and perseverance through difficult experiences in sport. Self-compassion has been associated with happiness, optimism, and positive affect (Neff, Rude, et al., 2007), as well as linked to greater brain activation in the left prefrontal cortex, an area that is connected to optimism (Lutz, Greischar, Rawlings, Ricard, & Davidson, 2004). Research by Mosewich and colleagues (Mosewich, Crocker, & Kowalski, 2013; Mosewich, Crocker, Kowalski, & DeLongis, 2013) supports the conclusion that extending compassion towards the self is linked with a positive mindset, thus allowing one to focus on achievement striving. Mosewich, Crocker, and Kowalski (2013) found that despite the variety of setbacks that can be experienced in sport, the women athletes in their study emphasized the importance of being able to focus on the positive aspects of their hardships and take note of even small improvements. Thus, self-compassionate athletes realize that there are positive aspects that can be found in or come from their difficult experiences. Moreover, past research has shown that self-compassionate individuals want to change personal weaknesses and spend more time working towards improving on previous failures (Breines & Chen, 2012). By extending compassion towards oneself, athletes might be more apt to improve on past transgressions and failings (Breines & Chen, 2012) and carry on through their adverse sport experiences.

As is addressed in the eudaimonic well-being literature (Kopperud & Vittersø, 2008), reaching one's potential will most assuredly include struggles, challenges, and difficulties that require invested effort to develop towards one's potential. Specific to the sport context, young women athletes can encounter a variety of painful experiences and setbacks (Fraser-Thomas et

al., 2005; Mosewich, Crocker, & Kowalski, 2013) that might hinder psychological flourishing. My research, which empirically supports the connection between self-compassion and eudaimonic well-being and presents a framework to understand that relationship, is an important step in the promotion of self-compassion for athletes' psychological flourishing. Self-compassion shows promise as a potentially useful mindset for athletes as they experience hardships on their journey towards reaching their potential. Essentially, the model I have proposed suggests that extending compassion towards the self might help athletes to not give up in the face of their struggles, but rather to maintain a positive outlook and push through their difficult experiences towards reaching their potential. The conceptual model also contains a direct link between self-compassion and psychological flourishing in sport, which essentially represents indirect effects that are yet to be accounted for. As Hayes (2013) discussed, claiming "full" or "complete" mediation says nothing about the existence or absence of other possible mechanisms; moreover, terms such as "full" and "partial" mediation are outdated in our modern era of interpreting statistical mediation analyses. By incorporating a direct link in the conceptual framework, I have acknowledged that part of the association between self-compassion and eudaimonic well-being has not been accounted for by the proposed process variables.

Three caveats need to be expressed in tandem with the presentation of this conceptual framework. First, the framework I have proposed is rooted in correlational research findings and thus the paths in the model should not be considered causal. Results from the self-compassion in sport intervention by Mosewich, Crocker, Kowalski, and DeLongis (2013), which included changes in self-compassion resulting in changes to rumination and self-criticism, provides support for (a) the directionality of my conceptual model, and (b) the effect of self-compassion on psychological process variables similar to those in my proposed framework. The second caution regarding the conceptual framework pertains to larger restrictions that are placed on this research area due to the lack of a sport-specific eudaimonic well-being model. This limitation in the literature (which is discussed at greater length when directly addressing limitations to my research) further confines my proposed conceptual framework until we better understand psychological flourishing in sport. Quantitative findings from my research, particularly from Study 2 when an attempt was made to examine eudaimonic well-being within the sport context, suggest that autonomy, meaning and vitality in sport, as well as appreciation for one's physical self might be key eudaimonic outcomes to consider in the proposed conceptual model. However,

restricting psychological flourishing to these proxy indicators might not sufficiently represent the essence of eudaimonic well-being in sport, especially when considering that evidence emerged for a path model with the composite of proxy indicators of eudaimonia in Study 2.

The third caveat to my conceptual model pertains to the significant challenges that might coincide with developing young women athletes' self-compassion. Many of the athletes in the qualitative phase of Study 1 expressed reservations with being self-compassionate due to (1) their perceived threat of settling for mediocrity in sport if they are too self-compassionate, and (2) having to forego self-criticism, a characteristic they value as an athlete, in place of self-compassion. Research by Mosewich, Crocker, and Kowalski (2013) and Sutherland et al. (2013) reinforces the uncertainty that at least some young women athletes have with self-compassion in regards to the concern with passivity and reliance on self-criticism. Thus, from the perspective of young women athletes, there appears to be ambiguity in terms of whether self-compassion would support or thwart psychological flourishing in sport. The importance that many athletes place on being self-critical in their sport experiences is concerning from a self-compassionate perspective, as the inherent nature of self-compassion suggests that one cannot be both self-compassionate and self-critical. Asking athletes to forego self-criticism for a more kind, loving, and accepting self-attitude might be met with reluctance, resistance, or even fear (Gilbert et al., 2011). This likely translates into challenges with implementing self-compassion programs in sport, as athletes' resistance would present barriers in the promotion of self-compassion.

Developing genuine self-compassion can be challenging (Gilbert et al., 2011); a difficulty that is most certainly amplified if athletes are unsure of or resistant to self-compassion. Gilbert et al. (2011) have embarked on research that focuses on individuals' fears of compassion, including the fear of self-compassion, which might provide insight into athletes' reservations with self-compassion. Gilbert et al. have specifically noted that highly self-critical individuals are especially at risk for fearing self-compassion. Given that many athletes are self-critical (Mosewich, Crocker, & Kowalski, 2013), it is possible that their doubt and hesitation with fully embracing self-compassion in sport might stem from an inherent fear of extending compassion towards the self. If their hesitation is in fact manifesting as fear of self-compassion, perhaps efforts can and should be directed at first conquering that fear prior to developing a self-compassionate stance.

There are a number of strategies that might be utilized to promote self-compassion in sport. Gilbert et al. (2011) have suggested Compassionate Mind Training as a therapeutic technique whereby individuals learn to overcome their habitual form of self-to-self relating characterized by self-attacks (e.g., Gilbert & Procter, 2006; Laithwaite et al., 2009). At the beginning of their self-compassion in sport intervention, Mosewich, Crocker, Kowalski, and DeLongis (2013) presented evidence against self-compassion leading to complacency, which was likely an important inclusion to more clearly justify the usefulness of self-compassion. A unique approach to the promotion of self-compassion in sport that might circumvent athletes' misguided perceptions of the construct is to think of self-compassion as a coin: one side of the coin is the presence of self-kindness, common humanity, and mindfulness, while the other side of the coin is the absence of self-judgment, isolation, and overidentification. Each side of the coin appropriately represents self-compassion according to Neff's (2003a, 2003b) conceptualization of the construct; however, the sides differ in their presentation of self-compassion. Rather than promote self-compassion in terms of the self-kind and loving characteristics that are present, when dealing with a competitive athlete population it might be useful to promote self-compassion in terms of the absence of the more self-destructive characteristics. Athletes might be receptive to relating to the self in a way that is not harshly judgmental, emphasizes that individuals are not alone or disconnected from others, and means that individuals are not overwhelmed by their inadequacies. This side of the self-compassion coin is tailored to (1) characteristics of the sport context (e.g., highly evaluative, competitive, intimidating, pressure-filled; Fraser-Thomas et al., 2005; Krane et al., 2001) and (2) the cognitive structures of the target population (e.g., athletes in the current program of research provided examples of being judgmental towards themselves and dwelling on their struggles in sport). However, more research is needed to explore whether conquering the fear of and embracing self-compassion in place of self-criticism is the best route to flourish in sport. Given that many athletes seem to rely on self-criticism in sport (Mosewich, Crocker, & Kowalski, 2013), perhaps both self-compassion and self-criticism play a role in athletes' eudaimonic well-being. This possibility resonated with at least some of the athletes in the qualitative phase of my research, with reference being made to a balance between self-compassion and self-criticism in order to reach one's potential in sport.

Bearing in mind the abovementioned cautions, the conceptual model that I have proposed is important for future research efforts directed at understanding the relationship between self-compassion and eudaimonic well-being. Although more research is needed to support or refute the conceptual model, I have started to accumulate evidence that can inform future research about potential processes involved in the relationship between self-compassion and eudaimonic well-being. In particular, the model can serve as a platform towards developing interventions that target specific mechanism variables (Bauman et al., 2002; MacKinnon, 2008). Since mechanisms are on the pathway between exposure to an intervention and the outcomes of that program, the end goal is to see outcomes of the intervention that are based on changes in targeted mechanisms (Bauman et al., 2002). That is, in order for an intervention to be successful, the program must affect the mediators so that the outcomes can be achieved (Bauman et al., 2002). The importance of identifying mechanism variables can therefore not be understated as they address the question of how and why two things are related (MacKinnon, 2008).

4.3 Contributions to the Literature

My research extends the self-compassion literature beyond links with general indices of well-being, to explore self-compassion and well-being in the context of sport. To that end, a key strength of my research was taking a mixed methods approach. Given our limited understanding of the relationship between self-compassion and eudaimonic well-being to date, as well as the paucity of research on both constructs in the sport domain, a mixed methods research design was deemed particularly appropriate and beneficial to begin to understand if and how self-compassion is linked with young women athletes' psychological flourishing. A mixed methods design allowed me to transcend the so-called qualitative-quantitative divide (Mason, 2006) and did not limit or confine my attempts to answer my guiding research question. A mixed methods design also provided different types of meaningful information that were unique to each strategy of inquiry and could then be united to gain a deeper level of understanding (Creswell, 2014). That is, neither the qualitative nor quantitative strategies alone would have resulted in the same conclusions I report here. For example, my quantitative findings provided evidence for relationships between self-compassion and eudaimonic well-being, as well as preliminary insight into potential mechanisms involved in that relationship. The quantitative findings, however, gave no indication of concerns with extending compassion towards the self, as was revealed in discussions with the athletes in the qualitative phase of Study 1. Alternatively, employing purely

qualitative methods might not have provided enough support for a relationship between self-compassion and eudaimonic well-being, and potentially overlooked meaningful discussion as to how or why self-compassion might contribute to flourishing in sport. Combining qualitative and quantitative strategies of inquiry resulted in a greater understanding of an apparently complex relationship between self-compassion and eudaimonic well-being that would not have been achieved if either strategy of inquiry was employed alone.

Another strength of my research was incorporating a more applied research design in Study 2 through hypothetical, emotionally difficult, sport-specific scenarios. Study 2 findings are particularly useful as they can inform future researchers as to how athletes might react to these types of situations, and whether athletes typically perceive these situations as emotionally difficult. Moreover, having evidence to support the associations between self-compassion and indices of sport-specific psychological flourishing speaks to the potential advantages of self-compassion within sport. For example, findings from Study 2 suggest that self-compassionate athletes were more autonomous, found greater meaning, and had greater vitality in their sport experiences. These are novel findings that contribute to the literature on self-compassion in sport, an area of research that is beginning to grow (e.g., Ferguson, Kowalski, Mack, & Sabiston, 2013; Mosewich, Crocker, & Kowalski, 2013; Mosewich, Crocker, Kowalski, & DeLongis, 2013; Mosewich et al., 2011; Reis et al., 2013; Sutherland et al., 2013).

My research further contributes to the literature by offering preliminary insight as to how researchers and sport practitioners might best view self-compassion within sport, as a stable individual difference or a more state-like resource that is sensitive to situational factors. Although more research is needed in this area, my research findings provide some support for viewing (and therefore promoting) self-compassion as a way for athletes to generally relate to the self, as opposed to momentarily reacting self-compassionately to specific situations. This conclusion stems largely from Study 2 findings, in which self-compassion (i.e., SCS scores) was associated with the proxy indicators of autonomy, personal growth, purpose in life, and self-acceptance, whereas self-compassionate reactions was only related to the proxy indicator of self-acceptance. Moreover, self-compassionate athletes were more likely to react to hypothetical, emotionally difficult, sport-specific scenarios with positivity, perseverance, and responsibility, as well as less rumination, passivity, and self-criticism. Neff (2003a, 2003b) originally presented self-compassion as a general way of relating to oneself, or a healthy self-attitude. Since its initial

introduction to Western psychology, a growing body of research has implemented brief self-compassion inductions (e.g., Breines & Chen, 2012; Leary et al., 2007; Reis et al., 2013), which suggests that there might be state-like features to the construct. However, when the goal is psychological flourishing in sport, my research findings suggest that having a general self-compassionate attitude is likely best. This is a key finding in my research, as it speaks to my guiding research question about the role of self-compassion in young women athletes' eudaimonic well-being. Taking a trait-level orientation to self-compassion might also be a more appropriate match to the enduring qualities of eudaimonic well-being, which is a more stable construct (Schmutte & Ryff, 1997). However, the conclusion that general self-compassion appears to be better for flourishing in sport than brief moments of reacting self-compassionately stems largely from the measurement of self-compassion in my research (i.e., self-compassion as a trait versus self-compassionate reaction items) and not from attempts to change or induce self-compassion. Recent research by Reis et al. (2013), which included a brief self-compassion induction in response to an emotionally difficult hypothetical sport scenario, found that initial level of self-compassion accounted for young women athletes' healthy responses to the scenario. These findings support my claim that a general self-compassionate attitude might be best for young women athletes, as those with greater self-compassion responded healthier than athletes with lower self-compassion.

Finding preliminary support for a general self-compassionate attitude has implications for the promotion and development of self-compassion in sport. In contrast to using brief self-compassion interventions to induce a self-compassionate state (e.g., Leary et al., 2007), more intensive programs (e.g., Neff & Germer, 2013) might need to be developed that are sport-specific and work to promote athletes' adoption of an overall self-compassionate mind frame. Research by Mosewich, Crocker, Kowalski, and DeLongis (2013) provides an example of a sport-specific self-compassion program that has been shown to benefit athletes, specifically self-critical women athletes. The researchers' 7-day self-compassion intervention, which included a psychoeducation session and writing modules, decreased athletes' self-criticism, rumination, and concern over making mistakes. Importantly, these findings existed four weeks post-intervention, suggesting that the treatment facilitated the adoption of a general self-compassionate frame of mind. Other research has supported the use of writing as a therapeutic process in dealing with difficult emotional experiences (Pennebaker, 1997). Whether a self-compassion intervention

similar to that of Mosewich, Crocker, Kowalski, and DeLongis' might influence athletes' psychological flourishing is an important direction for future research. Specifically, examining how a self-compassion program affects flourishing in sport would identify which indices of eudaimonia can be influenced by changes in self-compassion, essentially suggesting how a self-compassion program might facilitate athletes' psychological flourishing in sport.

4.4 Research Limitations

Although I have noted limitations within each respective study, further comment is warranted in regards to study design, directionality of variables, and construct measurement. The quantitative strategies of inquiry in my research were cross-sectional, which poses certain restrictions on interpretation of study conclusions. An important caution pertains to the results of the path model analyses that explored mediation. One stipulation of causal mediation includes theoretical or procedural evidence for the temporal order of predictor, process, and criterion variables (Preacher & Hayes, 2008). The models explored in Study 1 and Study 2 contained cross-sectional data, which limits the conclusions that can be made. However, I have specifically indicated that my data are consistent with models of mediation, providing suggestive rather than definitive conclusions. Another condition of causal mediation, which is highly contested in the literature, pertains to the total effect of the predictor on the criterion variable. Some researchers and statisticians believe that there needs to be an effect of X on Y, otherwise there is no effect to be mediated (Baron & Kenny, 1986; Holmbeck, 1997; Muller, Judd, & Yzerbyt, 2005). Others belong to the school of thought in which an initial effect of X on Y is not required, as this prerequisite would overlook potentially interesting, important, or useful mechanisms (Hayes, 2009; MacKinnon et al., 2000; Shrout & Bolger, 2002). Further recommendations for mediation include testing a theoretically-driven relationship, including malleable social cognitive mechanisms with evidence of internal consistency to ensure minimal measurement error, and having the strength of the relationships between the predictor and mechanisms being relatively equal to the strength of the relationships between the mechanisms and criterion variables (Baron & Kenny, 1986; Frazier, Tix, & Baron, 2004). Moreover, path model analyses would ideally be accomplished through structural equation modeling, which allows for testing of competing hypotheses regarding directionality; however, significance testing based on smaller sample size, in tandem with deviations from normality noted for many study variables, precluded this approach in my quantitative strategies of inquiry.

Research by Frazier and colleagues (Frazier et al., 2007, 2012) provides an example of a program of research that explored mediation across multiple cross-sectional studies in an attempt to understand the processes involved in eudaimonic well-being. Initially, Frazier et al. (2007) found evidence to suggest that the relationship between age and eudaimonic well-being was mediated by self-regulatory processes, specifically goal pursuit, goal adjustment, and optimization. In a later study, Frazier et al. (2012) replicated some of their initial findings, yet explored and found support for other self-regulatory processes (i.e., possible selves) involved in the relationship between age and eudaimonic well-being. Just as Frazier and colleagues conducted multiple cross-sectional studies in an attempt to understand the mechanisms involved in optimal well-being across adulthood, I undertook multiple studies to begin to understand the processes by which self-compassion might be linked to young women athletes' eudaimonic well-being.

Another limitation of cross-sectional research concerns the directionality of study variables, as a cross-sectional design does not provide information regarding temporal order of variables (MacKinnon, 2008). The underlying conceptual model for my research is that being self-compassionate might lead to eudaimonic well-being, as opposed to being eudaimonically-well giving way to self-compassion. There are at least two key arguments that justify my chosen directionality. First, from a conceptual perspective, being self-compassionate is considered to promote or enhance well-being (Neff & Vonk, 2009), while Ryff's (1989) model of eudaimonia consists of six dimensions that constitute what it means to be psychologically-well. Thus, the very conceptualization of each construct differs, with self-compassion being viewed as a potential resource or strategy and eudaimonic well-being more of an outcome or end state. Second, empirical evidence to date supports the more malleable qualities of self-compassion, with self-compassion manipulated via brief inductions (e.g., Breines & Chen, 2012; Leary et al., 2007) and longer interventions (e.g., Mosewich, Crocker, Kowalski, & DeLongis, 2013; Neff & Germer, 2013). Notably, the self-compassion intervention developed by Mosewich, Crocker, Kowalski, and DeLongis (2013) not only resulted in changes to self-compassion, but also decreased rumination and self-criticism. Thus, there is evidence to suggest that changes in self-compassion result in changes to psychological variables that are similar to the proposed process variables in my research. These justifications, while they do not confirm my proposed

conceptual model, provide a level of confidence for the theoretically proposed directionality that guided my research.

It is important to consider the implications of common method variance in my research, which may have inflated relationships in Study 1 and Study 2 (Lindell & Whitney, 2001). Method variance is an artifact of measurement that biases results because the variance is attributed to measurement method (i.e., constructs are measured by the same method) rather than the constructs the measures represent (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Spector, 1987). As with all cross-sectional research in which self-report data is collected at one point in time, empirical results can be confounded because the method may exert a systematic effect on observed relationships between the measures, resulting in potentially misleading conclusions (Podsakoff et al., 2003). However, as I noted in Study 1, the magnitudes of relationships between study variables, particularly when broken down into dimensions/components of constructs, reflected what might be anticipated. Stronger relationships occur where expected (e.g., self-compassion and the self-acceptance dimension of eudaimonic well-being), and weaker or even non-significant relationships are exhibited elsewhere (e.g., self-compassion and proxy environmental mastery, the latter of which included a lot of comparison to others in its measurement). Furthermore, there is some evidence to suggest that properly developed instruments are resistant to the method variance problem (Spector, 1987). Future researchers should be aware of a number of procedural (e.g., collect measures of the predictor and criterion variables from different sources, improve scale items) and statistical remedies (e.g., use the multitrait-multimethod model to control for method variance and random error) that Podsakoff et al. (2003) have identified to circumvent method variance.

Construct measurement posed a unique challenge in my research, particularly in Study 2. Lundqvist (2011) discussed the importance of researchers defining well-being constructs at the level on which the construct is to be investigated, otherwise we run the risk of misrepresenting undefined aspects of well-being by relying solely on global assessments. Given that my research progressively became contextualized to the sport domain, culminating in the use of hypothetical sport-specific scenarios in Study 2, it was important to match this domain specificity with my measures. However, to the best of my knowledge, sport-specific measures of self-compassion, eudaimonic well-being, and the proposed mechanism variables do not exist. I therefore engaged in three crucial steps in an attempt to address these measurement challenges in Study 2. First, I

was fortunate to integrate self-compassion items, previously used by Leary et al. (2007), which measured self-compassionate reactions to the hypothetical sport-specific scenarios. Including these situation-specific reaction items allowed for more of a state-like assessment of self-compassion in sport. Second, I developed brief measures of the proposed mechanism variables in Study 2. It is important to note that these measures were (a) subjected to expert content review and analysis, and (b) empirically driven (i.e., developed from qualitative data in Study 1), intentionally including the language of young women athletes. The steps taken in item development have been supported in previous work on instrument development (Simms, 2008), particularly in sport psychology research (Dunn et al., 1999). Third, without a framework or model of psychological flourishing in sport available in the literature, I identified various measures of well-being that were sport-specific or relevant to sport, that conceptually matched or complemented each of the six dimensions of Ryff's (1989, 1995) model of eudaimonic well-being. Although it is unknown whether these measures, when combined, ideally reflect optimal psychological functioning and development in sport, as is the heart of eudaimonia (Kimiecik, 2011), they were intended to serve as proxy measures of the different dimensions of eudaimonic well-being in sport. In addition, I included Ryff and Keyes' (1995) SPWB measure in Study 2 to examine relationships between my chosen proxy measures and the global measure of eudaimonic well-being. Despite my efforts to use previously validated measures, develop brief mechanism instruments, and incorporate proxy measures of eudaimonic well-being, the lack of psychometrically sound measures (in some instances) and a model of psychological flourishing in sport pose potential limitations to my research.

4.5 Directions for Future Research

Findings from the current program of research can be used to inform a number of future research directions. For example, a natural extension might be to use the hypothetical, emotionally difficult, sport-specific scenarios in an experimental study. Along with research by Mosewich, Crocker, and Kowalski (2013), who identified poor performance, performance plateau, and injury as common setbacks experienced by women athletes, my research identified specific instances where self-compassion might be useful in sport. Specifically, the athletes in the qualitative phase of Study 1 identified failing to meet personal goals, making mistakes, being injured, and hitting a plateau as instances when treating oneself with compassion might be useful. Assessing the emotional difficulty of the hypothetical scenarios in Study 2 proved to be

an important measurement inclusion, as it provided assurance that participants viewed the situations as expected based on Study 1 qualitative findings. Future research might examine the effects of a self-compassion induction, perhaps similar to Leary et al.'s (2007) writing induction, on reactions to the hypothetical scenarios and sport-specific eudaimonic outcomes. Such research would provide evidence as to whether self-compassion is useful during those difficult sport situations, as well as show the effect of self-compassion on psychological flourishing in sport.

A similar yet more advanced direction for future research might be to take a more applied approach through critical incident research methods. After self-identifying critical events (i.e., an event or circumstance that is sudden, unexpected, or untimely and causes emotional or psychological distress; Raphael & Meldrum, 1994), young women athletes' self-compassion and eudaimonic well-being in sport could be tracked over an extended period of time. Such a design would allow for examination into the extent to which athletes with differing levels of self-compassion are able to psychologically flourish in sport through a critical incident. Similar to research by Steger and Kashdan (2007), who tracked meaning in life and life satisfaction over a one-year period to examine the stability and specificity of each construct, this design would (1) provide insight about the stability of self-compassion and eudaimonic well-being time during a critical incident; (2) provide greater clarity about the specificity of self-compassion and eudaimonic well-being (i.e., if each change independent of each other over time); and, (3) allow for examination into the longitudinal relations among these variables. This would be an important direction for future research, as it has been recommended that more sophisticated and longitudinal designs are needed to consider whether individuals can achieve sustainable gains in eudaimonic well-being (Gallagher, Lopez, & Preacher, 2009). An additional layer of complexity could be added by tracking athletes' performance outcomes, to begin to explore the link between self-compassion and physical or performance flourishing in sport.

As discussion in the literature grows and evidence accumulates for malleable self-compassionate states or reactions (e.g., Breines & Chen, 2012), a natural question for future research to consider is whether we should be looking at self-compassion from a multidimensional rather than global perspective. Given the multifaceted nature of the self, including various self-roles that can be inconsistent and conflicting (Harter, 1999; Harter, Bresnick, Bouchee, & Whitesell, 1997), a purely global representation of self-compassion might

mask important distinctions of self-compassion in different life domains. Perhaps self-compassion can be allocated into global self-compassion and different contextual roles; for example, career self-compassion, relationship self-compassion, and sport self-compassion. Some evidence exists for the potential dimensionality or multi-faceted nature of self-compassion, as Berry et al. (2010) and Smith (2013) considered the idea of body self-compassion in their research. Perhaps there are certain contexts within sport when it is more beneficial to be self-compassionate than others (e.g., post-season versus pre-season, training versus competition). The instances identified by women athletes in the qualitative phase of Study 1 suggest that there might be situations within sport where self-compassion would be particularly useful. Identifying instances when self-compassion is an impediment for athletes (e.g., negatively influences performance outcomes) would greatly expand our understanding of the construct in sport.

Previous research by Berry et al. (2010) explored the compassion women exercisers had for their bodies, supporting a physical self-specific form of self-compassion. Building on this framework, Smith (2013) recently highlighted the potential utility of body self-compassion for men with disabilities, noting that a compassionate approach to one's body can enable men to move beyond their physical limitations and encourage them to lead productive and fulfilling lives. Findings from my research (i.e., Study 2) provide evidence for the relationship between self-compassion and body appreciation, which is an especially meaningful finding given the frequent occurrence of appearance evaluations that women athletes experience in sport (Krane et al., 2001). Extending compassion toward the self might be advantageous for young women athletes to garner an appreciative stance towards their body, which might be particularly useful given the challenges young women athletes can face negotiating between an athletic, strong, sports-person body type and the ideal, small, thin, feminine body type (Krane et al., 2004; Mosewich et al., 2009). However, Berry et al. suggested a number of similarities between self-compassion and body self-compassion that might suggest redundancy of self-compassion in various life domains. Thus, researchers are encouraged to critically explore domain-specific possibilities of self-compassion. Such endeavors might uncover different roles and/or contexts when it is best to be self-compassionate, and perhaps instances when it is best to be self-critical.

A considerable part of my research consisted of exploring path models to better understand the relationship between self-compassion and eudaimonic well-being. As with others who have explored mediation within cross-sectional designs (e.g., Curran, Hill, & Niemiec,

2013; Felton & Jowett, 2013), I recognize the importance of expanding on my findings through longitudinal and experimental methods. Future research that provides more definitive support for the processes underlying the self-compassion–eudaimonic well-being relationship can be used to inform interventions or programs in sport. I have provided initial support for the psychological processes by which self-compassion is linked with psychological flourishing in sport, and proposed a conceptual model that can be used as a framework in future studies designed to gain more definitive evidence of mediation. An example of a study might be to have three assessment points that span a pre-determined length of time, as three or more waves of data can provide more accurate conclusions about temporal order of change and mediation (MacKinnon, 2008). At Time 1, self-compassion would be manipulated and assessed. The mechanism variables (e.g., passivity, positivity, and perseverance) and indices of psychological flourishing in sport would also be assessed at Time 1. All variables would be assessed at the remaining two time points (i.e., Time 2 and Time 3). Data analysis would examine mediation between self-compassion at Time 1 and indices of psychological flourishing at Time 3 by the mechanisms at Time 2. Such a longitudinal and experimental design would provide a test for causal mediation as it would (1) include temporal order of variables, (2) include a cause-effect pathway, (3) allow the path to be intervened by the mediating variables, and (4) assess the stability of constructs over time (Baron & Kenny, 1986; Bauman et al., 2002; MacKinnon, 2008).

As already addressed, there are likely challenges to implementing self-compassion programs in sport. There might also be developmental barriers that potentially obstruct the use of self-compassion in young women athletes. In order to extend compassion towards the self, there likely needs to be a level of normative development in self-representations that might only emerge beyond a certain developmental period. For example, the all-or-none thinking and inaccurate overgeneralizations of early adolescence, as well as cognitive conflict of one's true self that characterizes middle adolescence (Harter, 1999) imply that being self-compassionate might not even be possible during these age periods. Inaccurate self-perceptions, preoccupation with evaluations by others, and two forms of egocentrism, imaginary audience (i.e., assuming that others are as concerned about oneself as they themselves are) and personal fable (i.e., assuming that one's thoughts and feelings are uniquely experienced and could not be understood or experienced by others), are further benchmarks of these developmental periods (Harter, 1999).

Thus, it might not be possible for young girls to develop a compassionate self-attitude if they have not yet attained certain normative developmental changes in the self that provide the cognitive abilities to be genuinely self-compassionate.

In contrast to early and middle adolescence, late adolescence is characterized by a more advanced understanding and perspective of the self, including internalization of personal beliefs, values, and morals (Harter, 1999). Late adolescence brings with it a change in cognitive structures whereby individuals can integrate self-contradictions, form higher order abstractions, and construct one's own self-standards that govern personal choices and ideals (Harter, 1999). This developmental period also includes a more stable and balanced view of one's positive and negative attributes, as well as acceptance of one's limitations (Harter, 1999), qualities that might need to be established in order to be self-compassionate. With the youngest participants in my research falling within the late adolescence developmental period (i.e., 16 years old), they likely had many of the cognitive abilities to exhibit a self-compassionate mindset. However, while many of the abilities to construct a self-theory may be in place during late adolescence, many more cognitive advances will still take place into adulthood (Harter, 1999). It is therefore important to be mindful of both pragmatic and developmental barriers as researchers move forward with the promotion of self-compassion in sport for young women athletes.

One potential avenue for the promotion of self-compassion in sport is via coaches and trainers. Coaches could serve as self-compassion advocates by not only exemplifying the healthy self-attitude, but also teaching or encouraging it amongst their athletes. By serving as a support aid within athletes' social environments, coaches could play an important role as athletes progress to a developmental stage where self-compassion is possible. Since cognitive advances and solutions do not necessarily emerge on their own as individuals grow and mature, social support can play a vital role in development (Harter, 1999). Having a self-compassionate coaching philosophy or approach might prove to be further advantageous in the sport environment. Boyatzis, Smith, and Beveridge (2012) put forward a model of coaching with compassion that they theorized could increase athletes' well-being; specifically, that being compassionate in response to athletes' pain and desire to grow could enhance hedonic and eudaimonic well-being, respectively. By coaching from a position of care, empathic concern, and active responses, Boyatzis et al. claimed that compassion could activate positive emotional responses in athletes. Moreover, the researchers contended that coaching with compassion could

enhance the sport environment by creating norms and relationships grounded in caring. Research is needed to explore if a *self*-compassionate coaching approach would have similarly expected advantages. However, the establishment of variable directionality would be needed prior to the development of any such programs or interventions.

Whether self-compassion is differentially advantageous for athletes who compete in team sports as opposed to individual sports might also increase our understanding of self-compassion in sport. There were no exclusion criteria in terms of belonging to team and/or individual sports for participation in my research. Allowing for the inclusion of athletes from both team and individual sports was a purposeful decision in order to have a diverse athletic sample. Moreover, it can be difficult to select participants or analyze data based on sport type due to the nuances of sport categorization. Many athletes compete in multiple sports, some of which would be considered team sports (e.g., soccer) and others that are individual sports (e.g., distance running). For instance, Mosewich et al. (2011) noted that almost 95% of the women athletes in their study self-reported being involved in multiple sports. There are also challenges with classifying sports as team versus individual sports, as many individual sports (e.g., running, wrestling) include a large amount of team interaction (e.g., training with teammates; Evans, Eys, & Bruner, 2012). Indeed, Evans, Eys, and Wolf (2013) identified four individual team sport types with varying degrees of interdependence (i.e., collective, cooperative, contrient, independent), which illuminates the challenges with definitively labeling sports into one category. Moreover, Bruner, Hall, and Côté (2011) found evidence for similar perceptions of outcome interdependence (i.e., the extent to which successful goal attainment depends on other team members) for both basketball players and cross-country runners, regardless of sport type. The researchers concluded that greater attention to detail is needed to understand the experiences that occur in different sport settings rather than attributing experiences to the general categorization of sport type. Examining the differences between self-compassion and eudaimonic well-being in team versus individual sports was beyond the scope of my research question; however, the different experiences and outcomes that have been reported between sport types (Bruner et al., 2011) suggest that this might be a fruitful direction for future research. It might be important to consider the kinds of experiences that different sport types provide that are conducive to self-compassion. Perhaps self-compassion would hold more promise for athletes from individual sports, given their reduced protection from various social evaluations and tendency to have

greater social physique anxiety (Haase, 2009). Involvement in individual sports where athletes' physiques tend to be more open to evaluations may also be reason for having access to a compassionate self-attitude.

4.6 Conclusion

Given the documented physical and psychological benefits of sport (Fraser-Thomas et al., 2005; Nichols et al., 2007), it is important to find ways for sport to be as fulfilling as possible. Unfortunately, young women athletes often encounter physical, mental, and emotional challenges in sport (Krane et al., 2001; Krane et al, 2004; Mosewich et al., 2009). Largely because of the self-evaluation processes and failure experiences that are all too common, self-compassion might have promise for young women athletes' experiences and well-being in sport. The goal of my dissertation was to provide insight into the role of self-compassion in young women athletes' eudaimonic well-being. To that end, I have provided quantitative and qualitative support to suggest that, although there are likely challenges with doing so, promoting a self-compassionate mind frame might be advantageous for young women athletes' psychological flourishing. My research encourages additional research into the development of self-compassion as a worthwhile goal to help young women reach their potential in sport.

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Appendices

Appendix A: Study 1 Quantitative Phase University Ethics Approval



UNIVERSITY OF
SASKATCHEWAN

Behavioural Research Ethics Board (Beh-REB)

Certificate of Approval

PRINCIPAL INVESTIGATOR

Kent C. Kowalski

DEPARTMENT

Kinesiology

BEH#

11-69

INSTITUTION(S) WHERE RESEARCH WILL BE CONDUCTED

University of Saskatchewan
87 Campus Drive

STUDENT RESEARCHER(S)

Leah Ferguson

FUNDER(S)

NATURAL SCIENCES & ENGINEERING RESEARCH
COUNCIL OF CANADA (NSERC)

TITLE

Self-compassion and Eudaimonic Well-being Among Young Women Involved in Sport and Exercise

ORIGINAL REVIEW DATE
20-Mar-2011

APPROVAL ON
04-Apr-2011

APPROVAL OF:
Ethics Application
Consent Protocol

EXPIRY DATE
04-Apr-2012

Full Board Meeting ☐

Date of Full Board Meeting:

Delegated Review ☒

Expedited Review: ☐

CERTIFICATION

The University of Saskatchewan Behavioural Research Ethics Board has reviewed the above-named research project. The proposal was found to be acceptable on ethical grounds. The principal investigator has the responsibility for any other administrative or regulatory approvals that may pertain to this research project, and for ensuring that the authorized research is carried out according to the conditions outlined in the original protocol submitted for ethics review. This Certificate of Approval is valid for the above time period provided there is no change in experimental protocol or consent process or documents.

Any significant changes to your proposed method, or your consent and recruitment procedures should be reported to the Chair for Research Ethics Board consideration in advance of its implementation.

ONGOING REVIEW REQUIREMENTS

In order to receive annual renewal, a status report must be submitted to the REB Chair for Board consideration within one month of the current expiry date each year the study remains open, and upon study completion. Please refer to the following website for further instructions: http://www.usask.ca/research/ethics_review/

John Rigby, Chair
University of Saskatchewan
Behavioural Research Ethics Board

Please send all correspondence to:

Research Ethics Office
University of Saskatchewan
Box 5000 RPO University, 1602-110 Gymnasium Place
Saskatoon SK S7N 4J8

Appendix B: Study 1 Quantitative Phase Public School Division Approval



310 - 21st Street East, Saskatoon, Saskatchewan S7K 1M7
Tel: (306) 683-8200 • Fax: (306) 657-3900
www.spsd.sk.ca
George Rathwell, Director of Education

May 12, 2011

Leah Ferguson
186 Verbeke Road
SASKATOON SK S7K 6R2

Dear Ms. Ferguson:

I have received and approved your request to conduct research in Saskatoon Public Schools. Your study entitled, *"Self-Compassion and Eudaimonic Well-being Among Young Women Involved in Sport and Exercise"* promises to provide interesting and relevant information.

Please contact principals directly and provide them with the written details of your study, a copy of the questionnaire and a copy of this letter when seeking permission to conduct research in the school.

Our staff and students voluntarily participate in research and are free to withdraw from the research at any time.

Upon completion of your research, we request that you submit a copy of your study to our office. Best wishes for success with your research.

Yours truly,

Dr. Scott Tunison
Coordinator: Research and Measurement

ST: tf

Copy to:

Doug Njaa – Principal at Evan Hardy Collegiate
Bruce Bradshaw – Principal at Walter Murray Collegiate
Brian Flaherty – Principal at Aden Bowman Collegiate
Dean Newton – Principal at Mount Royal Collegiate
Linda Stanviloff – Superintendent of Education
John Dewar – Superintendent of Education
Brenda Green – Superintendent of Education
Patricia Prowse – Superintendent of Education
Donnalee Weinmaster – Superintendent of Education



Sport, Exercise, & Well-being

You are invited to participate in a research project entitled **Self-compassion and Eudaimonic Well-being Among Young Women Involved in Sport and Exercise**. Please read this form carefully, and **feel free to email or call the researchers with any questions** you might have.

Researchers:

Leah Ferguson
Ph.D. Candidate
College of Kinesiology
University of Saskatchewan
Phone: 966-1099
Email: leah.ferguson@usask.ca

Dr. Kent Kowalski
Associate Professor Kinesiology
College of Kinesiology
University of Saskatchewan
Phone: 966-1079
Email: kent.kowalski@usask.ca

Purpose and Procedure: The purpose of this study is to see if and how self-compassion is related to eudaimonic well-being (i.e., an index of positive psychological health) among young women involved in sport and exercise. Self-compassion may be defined as treating oneself with kindness during times of suffering or failure, and eudaimonic well-being may be defined as what you experience (the outcome) when you are fully functioning psychologically at your true and highest potential.

You are asked to complete the attached questionnaire, which inquires about your sport/exercise experiences and psychological well-being. A sample question is, "I am the kind of person who likes to give new things a try." The questionnaire package will take approximately 30-60 minutes to complete. Participation in this study is completely voluntary. In an effort to show our appreciation for your time, you will receive a \$5.00 Booster Juice gift card. You will be contacted via email to collect your gift card.

Potential Benefits: Although there are no known personal benefits to participating, this study will assist in providing insight into the relationship between self-compassion and psychological well-being. This is an important step in order for researchers to better understand how self-compassion might contribute to psychological health.

Potential Risks: There are no known physical or psychological risks associated with participating in this study. You are encouraged to contact the researchers at any time (before, during, or after the study) to ask any questions that you may have. In the event that you would like to further discuss your feelings regarding the issues discussed in the study, Saskatoon Mental Health Services can assist you:

¹¹ The consent form was not geared specifically toward athletes as the original focus of the dissertation considered exploring self-compassion and eudaimonic well-being in young women athletes and exercisers.

Mental Health Services - services available to public, no fee
Phone # 655-7950

- Youth Mental Health Services (for adolescents 12-19 years old)
- Adult Mental Health Services (for adults 19 years and older)

Storage of Data: All research material will be stored securely in the office of Dr. Kent Kowalski at the University of Saskatchewan. Only the researchers will have access to the data. The data will be stored for a minimum of five years after completion of the study. This is standard protocol for any data that may be published in an academic journal and/or presented at a professional conference.

Confidentiality: The data from the study will be used as part of the student researcher's Doctoral dissertation, as well as to produce a manuscript in hopes of publishing in a scholarly journal and/or being presented at a conference. Only the research team will have access to the completed questionnaires. Written reports of the data will be reported in aggregate/summarized form so that it will not be possible to identify individuals.

Right to Withdraw: Your participation is voluntary, and you can answer only those questions that you are comfortable with. Not answering a question or withdrawing from the study will result in no penalty to you or anyone else. You may withdraw from the study for any reason, at any time, without penalty of any sort and the decision to withdraw will not affect any of your current or future activities. If you withdraw from the study, any data that you have contributed will be destroyed at your request. Your right to withdraw from the study will apply until the data is pooled and analyzed. After this point it is possible that some form of research dissemination will have already occurred and it may not be possible to withdraw your data.

Questions: If you have any questions concerning the research project, please feel free to contact the researchers at any point. This research project has been approved on ethical grounds by the University of Saskatchewan Behavioural Research Ethics Board on April 19, 2011. Any questions regarding your rights as a participant may be addressed to that committee through the Ethics Office (966-2084). Out of town participants may call collect.

You may contact the research team to find out the results of the study or request a copy of the published manuscript.

Consent to Participate:

I have read and understood the description provided; I have had an opportunity to ask questions and my questions have been answered. I consent to participate in the research project, understanding that I may withdraw my consent at any time.

☐ Yes

☐ No

Appendix D: Study 1 Quantitative Phase Demographics Questionnaire

**Sport, Exercise, and Well-Being:
QUESTIONNAIRE PACKAGE**

Thank you for taking the time to participate in this study. This questionnaire should take you approximately 30-60 minutes to complete. Please answer each question honestly. If you feel uncomfortable answering any question, you may choose to skip over it if you wish. If you have any questions at all, please feel free to contact the researchers at anytime. All information received is held in confidence. Please provide your...

Age (please indicate numerical age in years; e.g., 18): _____

Height (please specify feet, inches, or cm): _____

Weight (please specify kg or lbs): _____

If university student:

Year of university (e.g., 2): _____

College/Department: _____

NSID (e.g., msp470): _____

If high school student:

Grade (e.g., 11): _____

Email address: _____

Marital Status:

☐

Single

☐

Married/Common Law

☐

Separated/Divorced

☐

Widowed

Sociocultural Information:

How would you describe yourself? You may mark more than one or specify, if applicable.

- | | |
|--|--|
| <input type="checkbox"/> White | <input type="checkbox"/> Aboriginal |
| <input type="checkbox"/> Chinese | <input type="checkbox"/> South Asian (e.g., East Indian, Pakistani, Sri Lankan, etc.) |
| <input type="checkbox"/> Black | <input type="checkbox"/> Filipino |
| <input type="checkbox"/> Latin American | <input type="checkbox"/> Southeast Asian (e.g., Vietnamese, Cambodian, Malaysian, Laotian, etc.) |
| <input type="checkbox"/> Arab | <input type="checkbox"/> West Asian (e.g., Iranian, Afghan, etc.) |
| <input type="checkbox"/> Korean | <input type="checkbox"/> Japanese |
| <input type="checkbox"/> Other – Please specify: _____ | |

Sport and Exercise Involvement

For the following question, please consider the following definitions:

An athlete is defined as someone who has been involved in at least one sport in the last 12 months. An exerciser is defined as someone who has planned and participated in physical activity that raised her breathing rate and heart rate for at least three 30 minute sessions a week for the last three weeks. Based on these definitions, which of the following best describes you:

- ☐ A) Neither athlete nor exerciser
- ☐ B) Athlete only (please complete the “sport involvement” section below)
- ☐ C) Exerciser only (please complete the “exercise involvement” section on next page)
- ☐ D) Both athlete and exerciser (please complete the “sport involvement” section below and the “exercise involvement” section on next page)

Sport Involvement (only complete if checked box B or D above)

Please indicate the levels of sport competition you have competed at IN THE LAST 12 MONTHS. Also indicate the sport(s) that each level is applicable to (i.e., what sport(s) you competed in at each level).

LEVEL	SPORT(S)
<i>Recreational</i> (competing in intramurals or in a recreational league)	
<i>Local</i> (competing against athletes from your city/town)	
<i>Provincial</i> (competing against athletes from around the province of Saskatchewan)	
<i>Regional</i> (competing against athletes from the western provinces [i.e., BC, AB, SK, MB])	
<i>National</i> (competing at a National Championship)	
<i>International I</i> (competing against athletes from a country other than Canada)	
<i>International II</i> (member of a national team [i.e., representing/represented Canada])	

During the PAST WEEK, how many times did you play an active sport, such as baseball, softball, basketball, soccer, swimming, or football?

0	1	2	3
<i>not at all</i>			<i>5 or more times</i>

Exercise Involvement (only complete if checked box C or D on previous page)

Please choose one answer that is closest to your actual exercise behaviour. Exercise is defined as any planned physical activity that raises your heart and breathing rate.

When exercising, on average how long does each exercise session last?

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Less than
30 minutes | 30 minutes | 60 minutes | 90 minutes | 120 minutes
or more |

On average, how many days per week do you exercise?

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Less than
3 days | 3 days | 4 days | 5 days | 6 days
or more |

How long have you been exercising at least 3 days per week, for at least 30 minutes per session?

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Less than
3 weeks | 3 weeks | 6 weeks | 1 year | 2 years
or more |

Appendix E: Self-compassion Scale

HOW I TYPICALLY ACT TOWARDS MYSELF IN DIFFICULT TIMES

Please read each statement carefully before answering. To the left of each item, indicate how often you behave in the stated manner, using the following scale:

- | <i>Almost
never</i> | | | | | <i>Almost
always</i> |
|-------------------------|----------|----------|----------|----------|---|
| <i>1</i> | <i>2</i> | <i>3</i> | <i>4</i> | <i>5</i> | |
| _____ | | | | | 1. I'm disapproving and judgmental about my own flaws and inadequacies. |
| _____ | | | | | 2. When I'm feeling down I tend to obsess and fixate on everything that's wrong. |
| _____ | | | | | 3. When things are going badly for me, I see the difficulties as part of life that everyone goes through. |
| _____ | | | | | 4. When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world. |
| _____ | | | | | 5. I try to be loving towards myself when I'm feeling emotional pain. |
| _____ | | | | | 6. When I fail at something important to me I become consumed by feelings of inadequacy. |
| _____ | | | | | 7. When I'm down and out, I remind myself that there are lots of other people in the world feeling like I am. |
| _____ | | | | | 8. When times are really difficult, I tend to be tough on myself. |
| _____ | | | | | 9. When something upsets me I try to keep my emotions in balance. |
| _____ | | | | | 10. When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people. |
| _____ | | | | | 11. I'm intolerant and impatient towards those aspects of my personality I don't like. |
| _____ | | | | | 12. When I'm going through a very hard time, I give myself the caring and tenderness I need. |
| _____ | | | | | 13. When I'm feeling down, I tend to feel like most other people are probably happier than I am. |
| _____ | | | | | 14. When something painful happens I try to take a balanced view of the situation. |

*Almost
never*

1

2

3

4

*Almost
always*

5

- _____ 15. I try to see my failings as part of the human condition.
- _____ 16. When I see aspects of myself that I don't like, I get down on myself.
- _____ 17. When I fail at something important to me I try to keep things in perspective.
- _____ 18. When I'm really struggling, I tend to feel like other people must be having an easier time of it.
- _____ 19. I'm kind to myself when I'm experiencing suffering.
- _____ 20. When something upsets me I get carried away with my feelings.
- _____ 21. I can be a bit cold-hearted towards myself when I'm experiencing suffering.
- _____ 22. When I'm feeling down I try to approach my feelings with curiosity and openness.
- _____ 23. I'm tolerant of my own flaws and inadequacies.
- _____ 24. When something painful happens I tend to blow the incident out of proportion.
- _____ 25. When I fail at something that's important to me, I tend to feel alone in my failure.
- _____ 26. I try to be understanding and patient towards those aspects of my personality I don't like.

Appendix F: Scales of Psychological Well-being

(items from the 54-item version used in Study 2 are bolded)

The following set of questions deals with how you feel about yourself and your life. Please remember that there are no right or wrong answers.

Circle the number that best describes your present agreement or disagreement with each statement.	Strongly Disagree	Disagree Somewhat	Disagree Slightly	Agree Slightly	Agree Somewhat	Strongly Agree
1. Most people see me as loving and affectionate.	1	2	3	4	5	6
2. Sometimes I change the way I act or think to be more like those around me.	1	2	3	4	5	6
3. In general, I feel I am in charge of the situation in which I live.	1	2	3	4	5	6
4. I am not interested in activities that will expand my horizons.	1	2	3	4	5	6
5. I feel good when I think of what I've done in the past and what I hope to do in the future.	1	2	3	4	5	6
6. When I look at the story of my life, I am pleased with how things have turned out.	1	2	3	4	5	6
7. Maintaining close relationships has been difficult and frustrating for me.	1	2	3	4	5	6
8. I am not afraid to voice my opinions, even when they are in opposition to the opinions of most people.	1	2	3	4	5	6
9. The demands of everyday life often get me down.	1	2	3	4	5	6
10. In general, I feel that I continue to learn more about myself as time goes by.	1	2	3	4	5	6
11. I live life one day at a time and don't really think about the future.	1	2	3	4	5	6
12. In general, I feel confident and positive about myself.	1	2	3	4	5	6
13. I often feel lonely because I have few close friends with whom to share my concerns.	1	2	3	4	5	6
14. My decisions are not usually influenced by what everyone else is doing.	1	2	3	4	5	6

Circle the number that best describes your present agreement or disagreement with each statement.	Strongly Disagree	Disagree Somewhat	Disagree Slightly	Agree Slightly	Agree Somewhat	Strongly Agree
15. I do not fit very well with the people and the community around me.	1	2	3	4	5	6
16. I am the kind of person who likes to give new things a try.	1	2	3	4	5	6
17. I tend to focus on the present, because the future nearly always brings me problems.	1	2	3	4	5	6
18. I feel like many of the people I know have gotten more out of life than I have.	1	2	3	4	5	6
19. I enjoy personal and mutual conversations with family members or friends.	1	2	3	4	5	6
20. I tend to worry about what other people think of me.	1	2	3	4	5	6
21. I am quite good at managing the many responsibilities of my daily life.	1	2	3	4	5	6
22. I don't want to try new ways of doing things - my life is fine the way it is.	1	2	3	4	5	6
23. I have a sense of direction and purpose in life.	1	2	3	4	5	6
24. Given the opportunity, there are many things about myself that I would change.	1	2	3	4	5	6
25. It is important to me to be a good listener when close friends talk to me about their problems.	1	2	3	4	5	6
26. Being happy with myself is more important to me than having others approve of me.	1	2	3	4	5	6
27. I often feel overwhelmed by my responsibilities.	1	2	3	4	5	6
28. I think it is important to have new experiences that challenge how you think about yourself and the world.	1	2	3	4	5	6
29. My daily activities often seem trivial and unimportant to me.	1	2	3	4	5	6
30. I like most aspects of my personality.	1	2	3	4	5	6
31. I don't have many people who want to listen when I need to talk.	1	2	3	4	5	6

Circle the number that best describes your present agreement or disagreement with each statement.	Strongly Disagree	Disagree Somewhat	Disagree Slightly	Agree Slightly	Agree Somewhat	Strongly Agree
32. I tend to be influenced by people with strong opinions.	1	2	3	4	5	6
33. If I were unhappy with my living situation, I would take effective steps to change it.	1	2	3	4	5	6
34. When I think about it, I haven't really improved much as a person over the years.	1	2	3	4	5	6
35. I don't have a good sense of what it is I'm trying to accomplish in life.	1	2	3	4	5	6
36. I made some mistakes in the past, but I feel that all in all everything has worked out for the best.	1	2	3	4	5	6
37. I feel like I get a lot out of my friendships.	1	2	3	4	5	6
38. People rarely talk to me into doing things I don't want to do.	1	2	3	4	5	6
39. I generally do a good job of taking care of my personal finances and affairs.	1	2	3	4	5	6
40. In my view, people of every age are able to continue growing and developing.	1	2	3	4	5	6
41. I used to set goals for myself, but that now seems like a waste of time.	1	2	3	4	5	6
42. In many ways, I feel disappointed about my achievements in life.	1	2	3	4	5	6
43. It seems to me that most other people have more friends than I do.	1	2	3	4	5	6
44. It is more important to me to "fit in" with others than to stand alone on my principles.	1	2	3	4	5	6
45. I find it stressful that I can't keep up with all of the things I have to do each day.	1	2	3	4	5	6
46. With time, I have gained a lot of insight about life that has made me a stronger, more capable person.	1	2	3	4	5	6
47. I enjoy making plans for the future and working to make them a reality.	1	2	3	4	5	6
48. For the most part, I am proud of who I am and the life I lead.	1	2	3	4	5	6

Circle the number that best describes your present agreement or disagreement with each statement.	Strongly Disagree	Disagree Somewhat	Disagree Slightly	Agree Slightly	Agree Somewhat	Strongly Agree
49. People would describe me as a giving person, willing to share my time with others.	1	2	3	4	5	6
50. I have confidence in my opinions, even if they are contrary to the general consensus.	1	2	3	4	5	6
51. I am good at juggling my time so that I can fit everything in that needs to be done.	1	2	3	4	5	6
52. I have a sense that I have developed a lot as a person over time.	1	2	3	4	5	6
53. I am an active person in carrying out the plans I set for myself.	1	2	3	4	5	6
54. I envy many people for the lives they lead.	1	2	3	4	5	6
55. I have not experienced many warm and trusting relationships with others.	1	2	3	4	5	6
56. It's difficult for me to voice my own opinions on controversial matters.	1	2	3	4	5	6
57. My daily life is busy, but I derive a sense of satisfaction from keeping up with everything.	1	2	3	4	5	6
58. I do not enjoy being in new situations that require me to change my old familiar ways of doing things.	1	2	3	4	5	6
59. Some people wander aimlessly through life, but I am not one of them.	1	2	3	4	5	6
60. My attitude about myself is probably not as positive as most people feel about themselves.	1	2	3	4	5	6
61. I often feel as if I'm on the outside looking in when it comes to friendships.	1	2	3	4	5	6
62. I often change my mind about decisions if my friends or family disagree.	1	2	3	4	5	6
63. I get frustrated when trying to plan my daily activities because I never accomplish the things I set out to do.	1	2	3	4	5	6
64. For me, life has been a continuous process of learning, changing, and growth.	1	2	3	4	5	6

Circle the number that best describes your present agreement or disagreement with each statement.	Strongly Disagree	Disagree Somewhat	Disagree Slightly	Agree Slightly	Agree Somewhat	Strongly Agree
65. I sometimes feel as if I've done all there is to do in life.	1	2	3	4	5	6
66. Many days I wake up feeling discouraged about how I have lived my life.	1	2	3	4	5	6
67. I know that I can trust my friends, and they know they can trust me.	1	2	3	4	5	6
68. I am not the kind of person who gives in to social pressures to think or act in certain ways.	1	2	3	4	5	6
69. My efforts to find the kinds of activities and relationships that I need have been quite successful.	1	2	3	4	5	6
70. I enjoy seeing how my views have changed and matured over the years.	1	2	3	4	5	6
71. My aims in life have been more a source of satisfaction than frustration to me.	1	2	3	4	5	6
72. The past had its ups and downs, but in general, I wouldn't want to change it.	1	2	3	4	5	6
73. I find it difficult to really open up when I talk with others.	1	2	3	4	5	6
74. I am concerned about how other people evaluate the choices I have made in my life.	1	2	3	4	5	6
75. I have difficulty arranging my life in a way that is satisfying to me.	1	2	3	4	5	6
76. I gave up trying to make big improvements or changes in my life a long time ago.	1	2	3	4	5	6
77. I find it satisfying to think about what I have accomplished in life.	1	2	3	4	5	6
78. When I compare myself to friends and acquaintances, it makes me feel good about who I am.	1	2	3	4	5	6
79. My friends and I sympathize with each other's problems.	1	2	3	4	5	6
80. I judge myself by what I think is important, not by the values of what others think is important.	1	2	3	4	5	6

Circle the number that best describes your present agreement or disagreement with each statement.	Strongly Disagree	Disagree Somewhat	Disagree Slightly	Agree Slightly	Agree Somewhat	Strongly Agree
81. I have been able to build a home and a lifestyle for myself that is much to my liking.	1	2	3	4	5	6
82. There is truth to the saying that you can't teach an old dog new tricks.	1	2	3	4	5	6
83. In the final analysis, I'm not so sure that my life adds up to much.	1	2	3	4	5	6
84. Everyone has their weaknesses, but I seem to have more than my share.	1	2	3	4	5	6

Appendix G: Cognitive-Behavioral Avoidance Scale

Different people use different strategies to deal with situations and problems in their lives. Below are a number of strategies that people may use to deal with situations and problems. A number of the items below refer to dealing with situations at work or school. If you are not currently working or attending school, answer these items instead using your daily duties and activities. Please read each statement carefully and indicate how true, in general, each statement is for you using the following key:

- 1= **Not at all** true for me
 2= **Somewhat** true for me
 3= **Moderately** true for me
 4= **Very much** true for me
 5= **Extremely** true for me

1. I avoid attending social activities.	1	2	3	4	5
2. When uncertain about my future, I fail to sit down and think about what I really want.	1	2	3	4	5
3. I would like to achieve things at work/school, but I have to accept my limits.	1	2	3	4	5
4. I fail to do what is needed to follow through with achievement goals I have set for myself.	1	2	3	4	5
5. In order to avoid feelings of disappointment, I just try not to get too serious about work/school.	1	2	3	4	5
6. Rather than try new activities, I tend to stick with the things I know.	1	2	3	4	5
7. I choose to turn down opportunities to further my education/career.	1	2	3	4	5
8. I do not answer the phone in case people are calling with social invitations.	1	2	3	4	5
9. I quit activities that challenge me too much.	1	2	3	4	5
10. I try not to think about problems in my personal relationships.	1	2	3	4	5
11. I think to myself that I will not be able to complete really challenging tasks.	1	2	3	4	5
12. While I know I should make decisions about my personal relationships, I just let things go on as they are.	1	2	3	4	5
13. I avoid trying new activities that hold the potential for failure.	1	2	3	4	5
14. I do not go out to events when I know there will be a lot of people I do not know.	1	2	3	4	5
15. Instead of thinking about problems in my social life, I tell myself that I prefer to be alone.	1	2	3	4	5

1= **Not at all** true for me
 2= **Somewhat** true for me
 3= **Moderately** true for me
 4= **Very much** true for me
 5= **Extremely** true for me

16. I fail to discuss/address tension that builds in a friendship.	1	2	3	4	5
17. I find that I often want to leave social gatherings.	1	2	3	4	5
18. I do not try to think about ways to improve my work/school performance.	1	2	3	4	5
19. I try not to think about my future and what I will do with my life.	1	2	3	4	5
20. I just wait out tension in my relationships hoping that it will go away.	1	2	3	4	5
21. I tend to make up excuses to get out of social activities.	1	2	3	4	5
22. There is nothing I can do to improve problems in my relationships.	1	2	3	4	5
23. I turn down opportunities to socialize with the opposite sex.	1	2	3	4	5
24. I tend to remain to myself during social gatherings or activities.	1	2	3	4	5
25. I avoid making decisions about my future.	1	2	3	4	5
26. When I experience confusion in my relationships, I do not try to figure things out.	1	2	3	4	5
27. While I know that I have to make some important decisions about school/work, I just do not get down to it.	1	2	3	4	5
28. Rather than getting out and doing things, I just sit at home and watch TV.	1	2	3	4	5
29. I distract myself when I start to think about my work/school performance.	1	2	3	4	5
30. I do not bother thinking about how to solve problems in my family – it is useless.	1	2	3	4	5
31. I find myself avoiding tasks and assignments that are really important.	1	2	3	4	5

Appendix H: Personal Responsibility Questionnaire

Please indicate the response that appears true of you most of the time using the following key:

Strongly Disagree
1

Disagree
2

Agree
3

Strongly Agree
4

ITEM	Strongly Disagree	Disagree	Agree	Strongly Agree
1. If someone is mean to me it is not my fault if I am mean to them.	1	2	3	4
2. When I experience a problem I actively seek to resolve it.	1	2	3	4
3. I usually stay focused on my goal and don't allow anything to distract me from my plan of action.	1	2	3	4
4. My emotions come out whenever they feel like it and there I little I can do about it.	1	2	3	4
5. I expect that I will do well on most things I try.	1	2	3	4
6. When I am mad, I yell at people.	1	2	3	4
7. I often say the first thing that comes into my mind without really thinking about it.	1	2	3	4
8. I am usually willing to admit my mistakes.	1	2	3	4
9. I am aware of how my behaviour impacts on other people.	1	2	3	4
10. It is my choice whether or not I do well in school.	1	2	3	4
11. To make a good decision it is important to think it through first.	1	2	3	4
12. Sometimes people make me so mad that I can't control my behaviour.	1	2	3	4
13. When I am angry or sad I can usually work out why.	1	2	3	4
14. I have a whole bunch of thoughts and feelings that often distract me from what I am trying to do.	1	2	3	4
15. I am mainly responsible for my future.	1	2	3	4
16. I can not control my behaviour.	1	2	3	4
17. I can solve most problems if I invest the necessary effort.	1	2	3	4
18. I want my actions to help other people.	1	2	3	4
19. People can depend on me to do the right thing most of the time.	1	2	3	4

ITEM	Strongly Disagree	Disagree	Agree	Strongly Agree
20. I might as well give up because I can't make things better for myself.	1	2	3	4
21. I sometimes pick on people I don't like.	1	2	3	4
22. I believe it is usually best to cover up my mistakes.	1	2	3	4
23. I make sure that doing what I want will not cause problems for other people.	1	2	3	4
24. I really care about how my actions might affect others.	1	2	3	4
25. It is not my fault if I do not bring my equipment to school.	1	2	3	4
26. I can plan ahead to make sure I have the equipment I need for school.	1	2	3	4
27. I sometimes become "wild and crazy" and do things other people may not like.	1	2	3	4
28. I am a well-organized person.	1	2	3	4
29. I can choose how I behave.	1	2	3	4
30. If I want to risk getting in trouble that is my business and nobody else's.	1	2	3	4

Appendix I: Personal Growth Initiative Scale

Please read each statement carefully before answering. To the left of each item, indicate your response using the following scale:

Definitely Disagree						Definitely Agree
0	1	2	3	4		5

- _____ 1. I know how to change specific things that I want to change in my life.
- _____ 2. I have a good sense of where I am headed in life.
- _____ 3. If I want to change something in my life, I initiate the transition process.
- _____ 4. I can choose the role that I want to have in a group.
- _____ 5. I know what I need to do to get started toward reaching my goals.
- _____ 6. I have a specific action plan to help me reach my goals.
- _____ 7. I take charge of my life.
- _____ 8. I know what my unique contribution to the world might be.
- _____ 9. I have a plan for making my life more balanced.

Appendix J: Self-determination Scale

Please read the pairs of statements, one pair at a time, and think about which statement within the pair seems more true to you at this point in your life. Indicate the degree to which statement A feels true, relative to the degree that Statement B feels true, on the 5-point scale shown after each pair of statements. If statement A feels completely true and statement B feels completely untrue, the appropriate response would be 1. If the two statements are equally true, the appropriate response would be a 3. And so on.

1. A. I always feel like I choose the things I do.

B. I sometimes feel that it's not really me choosing the things I do.

Only A feels true 1 2 3 4 5 **Only B feels true**

2. A. My emotions sometimes seem alien to me.

B. My emotions always seem to belong to me.

Only A feels true 1 2 3 4 5 **Only B feels true**

3. A. I choose to do what I have to do.

B. I do what I have to, but I don't feel like it is really my choice.

Only A feels true 1 2 3 4 5 **Only B feels true**

4. A. I feel that I am rarely myself.

B. I feel like I am always completely myself.

Only A feels true 1 2 3 4 5 **Only B feels true**

5. A. I do what I do because it interests me.

B. I do what I do because I have to.

Only A feels true 1 2 3 4 5 **Only B feels true**

6. A. When I accomplish something, I often feel it wasn't really me who did it.

B. When I accomplish something, I always feel it's me who did it.

Only A feels true 1 2 3 4 5 **Only B feels true**

7. A. I am free to do whatever I decide to do.

B. What I do is often not what I'd choose to do.

Only A feels true 1 2 3 4 5 **Only B feels true**

8. A. My body sometimes feels like a stranger to me.

B. My body always feels like me.

Only A feels true 1 2 3 4 5 **Only B feels true**

9. A. I feel pretty free to do whatever I choose to.

B. I often do things that I don't choose to do.

Only A feels true 1 2 3 4 5 **Only B feels true**

10. A. Sometimes I look into the mirror and see a stranger.

B. When I look into the mirror I see myself.

Only A feels true 1 2 3 4 5 **Only B feels true**

Appendix K: Study 1 Qualitative Phase University Ethics Approval



UNIVERSITY OF
SASKATCHEWAN

Behavioural Research Ethics Board (Beh-REB)

Certificate of Approval

PRINCIPAL INVESTIGATOR
Kent C. Kowalski

DEPARTMENT
Kinesiology

BEH#
12-100

INSTITUTION(S) WHERE RESEARCH WILL BE CONDUCTED
University of Saskatchewan

STUDENT RESEARCHER(S)
Leah Ferguson

FUNDER(S)
SOCIAL SCIENCES AND HUMANITIES RESEARCH
COUNCIL OF CANADA (SSHRC)

TITLE
Young Women Athletes' Experiences of Self-compassion and Human Potential

ORIGINAL REVIEW DATE
04-Apr-2012

APPROVAL ON
26-Apr-2012

APPROVAL OF:
Application for Behavioural Research Ethics
Review
Appendix A: Semi-structured Interview Guide
Appendix C: Semi-structured Focus Group Guide
Appendix D: Email Communication Script
Appendix F: Consent Form

EXPIRY DATE
25-Apr-2013

Full Board Meeting ☐

Delegated Review ☒

CERTIFICATION

The University of Saskatchewan Behavioural Research Ethics Board has reviewed the above-named research project. The proposal was found to be acceptable on ethical grounds. The principal investigator has the responsibility for any other administrative or regulatory approvals that may pertain to this research project, and for ensuring that the authorized research is carried out according to the conditions outlined in the original protocol submitted for ethics review. This Certificate of Approval is valid for the above time period provided there is no change in experimental protocol or consent process or documents.

Any significant changes to your proposed method, or your consent and recruitment procedures should be reported to the Chair for Research Ethics Board consideration in advance of its implementation.

ONGOING REVIEW REQUIREMENTS

In order to receive annual renewal, a status report must be submitted to the REB Chair for Board consideration within one month of the current expiry date each year the study remains open, and upon study completion. Please refer to the following website for further instructions: http://www.usask.ca/research/ethics_review/

John Rigby, Chair
University of Saskatchewan
Behavioural Research Ethics Board

Please send all correspondence to:

Research Ethics Office
University of Saskatchewan
Box 5000 RPO University, 1602-110 Gymnasium Place
Saskatoon SK S7N 4J8
Telephone: (306) 966-2975 Fax: (306) 966-2069



Sport, Self-compassion, & Human Potential

You are invited to participate in a research project entitled **Young Women Athletes' Experiences of Self-compassion and Human Potential**. Please read this form carefully, and feel free to email or call the researchers with any questions you might have.

Researchers:

Leah Ferguson
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Purpose and Procedure: The purpose of this study is to explore young women athletes' perspectives on when self-compassion may be most useful to them in their sport experiences. Self-compassion is defined as treating oneself with kindness during times of suffering or failure. In addition to better understanding the situations in which self-compassion is potentially most useful, this study will provide insight as to how women athletes describe human potential in sport.

Participation in this study is completely voluntary. If you do choose to become involved, your participation will be required in two phases. Each phase will be conducted at a time that is convenient for you in the Physical Activity Complex at the University of Saskatchewan, and will be led by a female researcher (i.e., Leah Ferguson).

In Phase 1, a one-on-one interview will be held with Leah Ferguson that will last an estimated 45-60 minutes. Discussions in the interview will include topics such as sport background; challenges, weaknesses, and failures experienced in sport; and the potential usefulness of treating oneself with kindness. In Phase 2, you will be involved in a focus group discussion with three or four other young women athletes, which will last approximately one hour. During this phase, the group will further discuss the topics addressed in the one-on-one interviews. In an effort to show our appreciation for your time, you will receive a \$25.00 Lululemon gift card at the end of Phase 2. If for some reason you are unable to attend a focus group, a time and place will be arranged to receive your gift card.

Both the interview and focus group will be audiotaped, and field notes may be taken. The audiotapes will be transcribed (written out) word for word in order for the research team to review what was said and develop themes.

Funding: This study is funded by a Social Sciences and Humanities Research Council of Canada – Joseph-Armand Bombardier Canada Graduate Doctoral Scholarship awarded to Leah Ferguson.

Potential Benefits: Although no benefits of participating in this study can be guaranteed, there is the potential for participation to provide the opportunity for an increased understanding about challenging sport experiences. Little research has been conducted in the area of self-compassion, human potential, and sport, so the results generated from this study may be beneficial to you and other young women.

Potential Risks: There are no known or anticipated physical or psychological risks associated with participating in this study. You have the right to refuse to answer any question, at which point the discussion will be redirected. Not answering a question or withdrawing from the study will result in no penalty to you or anyone else. Although we do not expect any psychological risk, if we feel participation is placing you under undue stress (e.g., establishing mutual times for interview sessions) we will discontinue your involvement in the study, again resulting in no penalty. You are encouraged to contact the researchers at any time (before, during, or after the study) to ask any questions that you may have. In the event that you would like to further discuss your feelings regarding the issues discussed in the study, Saskatoon Mental Health Services can assist you:

Mental Health Services - services available to the public, no fee

Phone # 655-7950

- Youth Mental Health Services (for adolescents 12-19 years old)
- Adult Mental Health Services (for adults 19 years and older)

Storage of Data: All research material will be stored securely in the office of Dr. Kent Kowalski at the University of Saskatchewan. Only the researchers will have access to the data. The data will be stored for a minimum of five years after completion of the study. This is standard protocol for any data that may be published in an academic journal and/or presented at a professional conference.

Confidentiality: The data from the study will be used as part of the student researcher's Doctoral dissertation, as well as to produce a manuscript in hopes of publishing in a scholarly journal and/or being presented at a conference. However, *your identity* will be kept confidential. Although we might report direct quotations from the interviews, you will be asked to choose a pseudonym (made up name) and all identifying information (name, school, address, etc.) will be removed from our report. Only the research team will review the original audiotapes and transcripts. Names or other identifying information will not be discussed or made public outside of the research team. Audiotapes will be identified by code number and stored in a secure, locked office. The audiotapes and transcripts will be stored separately from the master sheet identifying names, pseudonyms, and code numbers. The master sheet will be shredded when data collection is complete and it is no longer required.

Although every effort will be taken to uphold your confidentiality, there are limits on the level of confidentiality that we as researchers can assure. Because you will take part in a small focus group, it is possible that you may be identifiable to other people on the basis of what you have said. The researchers will undertake to safeguard the confidentiality of the discussion in the focus group, but cannot guarantee that other members of the group will do so. Please respect the confidentiality of the other members of the group by not disclosing the content of this discussion outside the group, and be aware that others may not respect your confidentiality. After your interviews, and prior to the data being included in the final report, you will be given the

opportunity to review the transcript of your interview, and to add, alter, and delete information from the transcripts as you see fit. Also, it is important that you are aware that there are certain types of information that the researchers may be obliged to report to relevant authorities (e.g., child abuse, intent to do violence, etc.).

Right to Withdraw: Your participation is voluntary, and you can answer only those questions that you are comfortable with. Not answering a question or withdrawing from the study will result in no penalty to you or anyone else. You may withdraw from the study for any reason without explanation until the data is pooled and analyzed without penalty of any sort; and the decision to withdraw will not affect any of your current or future activities. If you withdraw from the study, any data that you have contributed will be destroyed at your request. You will be advised of any new information that may have a bearing on your decision to participate. Prior to each phase, you will be asked if you still wish to participate.

Questions: If you have any questions concerning the research project, please feel free to contact the researchers. You are also free to contact the researchers if you have questions at a later time. This research project has been approved on ethical grounds by the University of Saskatchewan Behavioural Research Ethics Board on April 26, 2012 (BEH # 12-100). Any questions regarding your rights as a participant may be addressed to that committee through the Ethics Office toll free at 1-888-966-2975 or ethics.office@usask.ca.

You may contact the research team to find out the results of the study, request to be involved in the review of the themes that emerge from data analysis, or request a copy of the published manuscript.

Consent to Participate: I have read and understood the description provided; I have had an opportunity to ask questions and my questions have been answered. I consent to participate in the research project, understanding that I may withdraw my consent at any time. A copy of this consent form has been given to me for my records.

(Name of Participant)

(Date)

(Signature of Participant)

(Signature of Researcher)

Appendix M: Study 1 Qualitative Phase Semi-Structured Interview Guide

1. Issues Related to Consent

- a. Participant reads and signs consent form.
- b. Verbal reminders of consent.
- c. Participant chooses a pseudonym.

2. Rapport Building

- a. Discuss sport demographics
 - probe:* When did your interest in sports first begin?
 - probe:* Types and levels of different sports played?
 - probe:* Where are you currently in sport (level, type)?
 - probe:* How did you end up where you are today in your sport?

3. Challenging and difficult times in sport

- a. What would you describe as a particularly difficult experience in your sport?
 - probe:* What are some examples of when you have experienced setbacks (or a failure) in your sport? Why did you consider this a setback?
 - probe:* What are some instances when you felt inadequate in your sport?
 - probe:* Maybe you did not meet a personal goal or expectation, or felt like you let yourself down.

4. Introduce Self-compassion

- a. Have you heard of the idea or concept of having compassion towards yourself?
 - probe:* Can you tell me a bit about what you think being compassionate towards the self means and what it involves?
 - probe:* What might having compassion towards yourself involve?
- b. Show three-minute YouTube video of Kristin Neff explaining self-compassion (<http://www.self-compassion.org/video-clips/self-compassion.html>).
- c. Provide participant with reference sheet and verbally overview the three components. Any questions about the concept of self-compassion?

5. Self-compassion Helpful in Sport

- a. Can you think of a situation in sport, if ever, when you were self-compassionate? Please describe.
 - probe:* When have you treated yourself with kindness and understanding in sport?
 - probe:* When in sport have you thought that your difficult experiences are shared by other athletes?
 - probe:* When in sport have you acknowledged a painful or difficult experience but tried not to let it overwhelm/consume you?
- b. What are some possible instances as an athlete that being self-compassionate might be helpful?
 - probe:* Can you tell me more details about these situations?
- c. Would acting self-compassionately have been helpful in the difficult sport experiences you previously described?

probe: Could self-compassion have been useful when you were confronted with these challenging experiences? How? Why? Why not?

6. Self-compassion Not Helpful in Sport

- a. What are some possible instances in sport that self-compassion might not be helpful?

probe: When might treating yourself with kindness and caring not be beneficial to you in sport?

probe: When in sport would it not have been helpful to consider that your difficult experiences are shared by other athletes?

probe: When in sport might it be helpful to completely suppress/ignore a painful or difficult feeling/experience? When in sport might it be helpful to let a painful or difficult feeling/experience overwhelm you?

- b. Why might self-compassion not be useful or helpful in sport?

- c. Would acting self-compassionately not have been helpful or effective in the difficult sport experiences you previously described?

- d. Can you describe any other instances when treating oneself with self-compassion might not be useful in sport?

7. Introduce Eudaimonic Well-being

- a. Eudaimonic well-being has been described as one's thoughts and feelings that accompany behaviour directed at achieving human potential.

8. Human Potential in Sport

- a. What does it mean to reach your potential in sport?

probe: What does achieving the best in you in sport involve?

probe: What thoughts/feelings contribute to achieving your potential in sport?

9. Elaborate on Eudaimonic Well-being

- a. Carol Ryff's model of human potential includes six dimensions; provide participant with reference sheet and go over verbally.

- b. What do you think of these 6 dimensions or components when thinking of the sport context?

probe: Are the dimensions appropriate or well-suited for describing human potential in sport?

probe: Which dimensions are applicable and which dimensions are not applicable to your idea of human potential in sport? Why/why not?

probe: If you had to rank order the 6 dimensions from most relevant to the sport context to least relevant to the sport context, what would it look like?

- c. What does your final definition of human potential in sport look like?

probe: It might combine your own ideas and some of the dimensions discussed, or just one or the other.

10. Self-compassion and Human Potential in Sport

- a. Combining the two main areas we've been talking about, do you think treating yourself with compassion might contribute to reaching your potential in sport?

probe: How or why might self-compassion help you reach your potential in sport?

probe: What might be the reasons why self-compassion contributes to reaching your potential in sport?

probe: What is it about treating yourself with compassion that might contribute to reaching your potential in sport?

- b. How might self-compassion detract or take away from reaching your potential in sport?

probe: Why might self-compassion take away or prevent you from reaching your potential in sport?

probe: What might be the reasons why self-compassion does not contribute to reaching your potential in sport?

11. Potential Mechanism Variables

- a. Does acting self-compassionately mean you are likely to be actively engaged in your sport? How?

probe: If you are acting self-compassionately, will you do what is needed to reach the goals you've set for yourself in your sport? Why/why not?

probe: If you are acting self-compassionately, will you try things despite risking failure in sport? Explain.

Does being actively engaged in your sport and thinking of ways to improve in your sport contribute to reaching your potential in sport? Why/why not?

- b. Does acting self-compassionately mean you are likely to take responsibility for your emotions and actions in your sport? Why/why not?

probe: Does acting self-compassionately have anything to do with feeling more responsible for your future in sport? Explain.

Does taking responsibility for your emotions and actions in sport contribute to reaching your potential in sport? Why/why not?

- c. Does acting self-compassionately mean you have a good sense of where you are headed or your future direction in your sport? Explain.

probe: Does treating yourself with compassion mean you are any more likely to initiate changes that you want in sport? Why/why not?

Does having a good sense of your future direction in sport and knowing what you need to do to reach your sport goals contribute to reaching your potential in sport?

Why/why not?

- d. Does acting self-compassionately mean you are likely to be self-determined or intrinsically motivated in your sport? Explain.

probe: Does treating yourself with compassion mean that you choose the things you do in your sport? Why/why not?

probe: Does treating yourself with compassion mean that you are able to be yourself in sport? Explain.

Does being self-determined and being able to be yourself in sport contribute to reaching your potential in sport? Why/why not?

12. Summary and Additional Comments

- a. Have participant summarize thoughts on topics discussed.
b. Additional comments she might have.

13. Final Notes
 - a. Study referral forms
 - b. Member checking
- c. Focus group reminder

Appendix N: Study 1 Qualitative Phase Semi-Structured Focus Group Guide

1. Issues Related to Consent

a. Verbal reminders

2. Re-introduce Self-Compassion

a. Provide reference sheets and verbally walk through definition and three components.

3. Re-introduce Eudaimonic Well-being

a. Provide reference sheets and verbally walk through definition.

4. Self-compassion a useful tool for reaching one's potential in sport

a. What are some key ways that self-compassion contributes to reaching your potential in sport?

probe: How or why does treating yourself with compassion in sport help you reach your potential in sport?

b. Emergent themes from one-on-one interviews as key ways that self-compassion contributes to reaching your potential in sport:

Positivity

→ Is this correct? Explain why/why not.

→ Explain how being self-compassionate makes you more positive.

→ Explain how that optimism might help you reach your potential in sport.

Perseverance

→ Is this correct? Explain why/why not.

→ Explain how being self-compassionate makes you push through the hard times in sport.

→ Explain how having perseverance might help you reach your potential in sport.

Perspective/Awareness

→ Is this correct? Explain why/why not.

→ Explain how being self-compassionate allows you to recognize your difficult experiences.

→ Explain how being aware of your difficulties and weaknesses might help you reach your potential in sport.

Responsibility

→ Is this correct? Explain why/why not.

→ Explain how being self-compassionate might make you take more responsibility.

→ Explain how taking responsibility might help you reach your potential in sport.

Self-criticism

→ Is this correct? Explain why/why not.

- Explain how being self-compassionate in sport might make you less self-critical?
- Explain how having less judgment towards yourself might help you reach your potential in sport.

Motivation

- Is this correct? Explain why/why not.
- Explain how being self-compassionate might make you more motivated.
- Explain how being motivated perspective might help you reach your potential in sport.

Rumination

- Is this correct? Explain why/why not.
- Explain how being self-compassionate might make you ruminate less.
- Explain how dwelling less on your hardships might help you reach your potential in sport.

Passivity

- Is this correct? Explain why/why not.
- Explain how being self-compassionate might or might not make you passive.

5. Additional Comments

- a. Additional comments participants might have.

6. Final Notes

- a. Transcript release forms

Appendix O: Study 1 Quantitative Analyses with Young Women Involved in Sport and Exercise

Like sport, participation in *exercise* is associated with numerous benefits including improved cardiovascular fitness and muscular strength, enhanced self-concept and self-esteem, as well as decreased depression, anxiety, and stress (Côté & Hay, 2002; Plante et al., 2007; Public Health Agency of Canada, 2003; World Health Organization, 2008). Despite the benefits, participation in exercise can be difficult, challenging, and emotionally painful for young women (e.g., Cash, Novy, & Grant, 2004; Krane et al., 2001), resulting in negative physical, emotional, psychological, and social outcomes (Fraser-Thomas et al., 2005).

Previous research has found that many women who participate in exercise are highly weight preoccupied and dissatisfied with their appearance (Brownell, Rodin, & Wilmore, 1992). This is perhaps not surprising given that women's exercise strategies have been linked primarily to weight and appearance concerns, with women often reporting exercise motives that originate from self-presentational concerns, such as weight, appearance, and body shape (Bane & McAuley, 1998; Marten-DiBartolo & Shaffer, 2002). Appearance-related exercise motives are disconcerting given that exercising for reasons such as weight control, body tone, or physical attractiveness have been associated with lower body satisfaction and greater body-related negative affect (Tiggemann & Williamson, 2000). Appearance-related exercise motives have also been linked to body dissatisfaction, body shame, negative body image, and unhealthy eating patterns among women (Cash et al., 2004; Iannos & Tiggemann, 1997; Krane et al., 2001; Parsons & Betz, 2001). Thus, although many women exercise primarily to feel more physically attractive to others and to increase their perceptions of others viewing their bodies more positively, exercise does not appear to make women feel any better about their bodies (Lowery et al., 2005). Women exercisers have been found to consistently exhibit a more negative body image than men, having greater body surveillance and discrepancies between their current and ideal body figures (Lowery et al., 2005). Thus, women's involvement in exercise has been linked with a variety of detrimental outcomes.

Prichard and Tiggemann (2005) found that exercise environments are associated with self-objectification (i.e., the internalization of constant external evaluation and objectification by others, characterized by habitual monitoring of one's outward appearance), self-surveillance, body dissatisfaction, and disordered eating habits. Some exercise environments (e.g., fitness centres) intensify the likelihood of experiencing self-objectification, due to a variety of

objectifying features (e.g., full-length mirrors, the opportunity for direct comparison with other women, wearing tight and revealing exercise clothing that clearly displays body shape, men observing women exercising) that place undue focus on bodily appearances. These findings draw further attention to the emphasis on appearance evaluations in exercise environments and suggest that exercise environments can be a source of objectification for women, which can create a difficult and emotionally painful experience for women. Thus, ways to make exercise a more positive experience for young women need to be explored.

The preceding discussion illustrates that, similar to participation in sport, exercise can be a challenging, difficult, and even negative experience for many young women. Research has found that both women athletes and exercisers perceive that others evaluate their performance, ability, and physical appearance in sport and exercise settings, respectively (Krane et al., 2001). Thus, women athletes *and* exercisers experience difficulties and are at risk for potentially negative outcomes associated with participation in their ventures. Given the challenging experiences that young women can face in sport and exercise, the original focus of my dissertation was on young women athletes and exercisers. However, significant practical (e.g., participant recruitment, measures for sport *and* exercise) and theoretical considerations (e.g., differentiating between athletes and exercisers), led to the decision to narrow my focus to athletes. Nevertheless, given the challenging and emotionally painful experiences that young women can endure in sport and exercise, young women exercisers – like young women athletes – may benefit from a kind, caring, and nonjudgmental attitude toward themselves afforded by self-compassion. Given that data collection for Study 1 of my dissertation originally included both athletes and exercisers, the data presented here outlines the findings for participants who self-identified as an athlete, exerciser, or both an athlete and exerciser.

As already outlined, self-compassion has been advocated as a tool or resource that is particularly relevant during times of suffering or failure to deal with life's challenges and difficulties (Neff, 2003a, 2003b). Given that sport and exercise can be particularly challenging and painful for young women (Krane et al., 2001; Sabiston et al., 2005), self-compassion may play an integral role in transforming these activities into more positive pursuits. In addition to the potential of self-compassion to be helpful in sport environments, the kind and understanding mind-frame of self-compassion might be helpful in exercise environments. Exercise contexts are ripe with the potential for critical self-evaluation and social comparison, and women are often

motivated to exercise to attain an external standard; as such, self-compassion might be relevant to women exercisers, as it would take the focus away from the evaluations and comparisons that often dictate one's self-worth. Since the self-love afforded by self-compassion is not based on self-evaluations or comparisons with others and it does not require individuals to adopt an unrealistic view of themselves (Neff, 2003b; Neff, 2004; Neff & Vonk, 2009), self-compassion may allow women exercisers to feel good about themselves without having to rely on positive evaluations of oneself. By transforming exercise into a more positive experience, individuals may experience positive and healthy development (Fraser et al., 2005).

Method

Participants.

One hundred twenty-five young women involved in sport and exercise participated in this study, with 73 participants in university (on average, having completed 2.71 years) and 52 participants in high school ($M_{\text{grade}} = 11.42$). Mean age of participants was 18.94 years ($SD = 2.16$), mean height was 166.12 cm ($SD = 7.42$), and mean weight was 63.37 kg ($SD = 12.29$). Thirteen participants self-identified as an athlete only, 42 as an exerciser only, and 70 as both an athlete and exerciser. The majority of self-identified exercisers (i.e., exerciser only or both athlete and exerciser) reported exercise that on average lasted 60 minutes or longer (73.60%), three or more days per week (88.00%), for at least a year (68.80%). The majority of participants self-identified as Caucasian (89.60%) and single (95.20%).

Measures and procedure.

Participants were emailed a secure link to an online web-based survey that contained all measures reported in Study 1 (i.e., SCS, SPWB, CBAS, PRQ, PGIS, and SDS) and informed consent (see Appendix C).

Results

Missing data and evaluation of assumptions.

Prior to statistical analysis, seven participants were deleted from the data set (from an initial sample of 132) due to missing data (i.e., missing more than two data points or missing two data points from the same subscale), which resulted in the final sample size of 125 participants. Participants with one (29 participants) or two (15 participants) missing data points that were not from the same subscale were retained and within-person mean substitution was used to estimate the missing value (Tabachnick & Fidell, 2007). One outlier was identified (from the CBAS) and

truncated at +3.29 standard deviations above the mean (Tabachnick & Fidell, 2007). Only scores from the SCS were normally distributed; hence, non-parametric distributions were normalized using appropriate data transformations (Tabachnick & Fidell, 2007). Data transformations did not substantially change the results of hypothesis testing. Therefore, all results are reported with original data.

Prior to interpreting data analyses, normality of the data was assessed by examining histograms of the standardized residuals. Linearity and homoscedasticity were examined through scatterplots of the residuals. Statistical significance was set at $p < .05$ for all analyses.

Descriptive statistics, scale reliabilities, and correlations.

Descriptive statistics and internal consistency scale reliabilities for the SCS, SPWB, CBAS, PRQ, PGIS, and SDS are reported in Table O.1. Self-compassion and eudaimonic well-being were positively correlated in athletes, exercisers, and both athletes and exercisers ($r_s = .56 - .77, p < .01$). Both self-compassion and eudaimonic well-being were negatively related to passivity for all sub-samples. Lastly, in all but one instance (i.e., self-compassion and initiative in exercisers), self-compassion and eudaimonic well-being were positively related to responsibility, initiative, and self-determination. Correlations among all variables for each sub-sample are presented in Table O.2

Multiple mediation analysis.

Given the small sub-sample sizes, especially the athlete only sub-sample, as well as general consistency in relationships among study variables across the sub-samples, the sub-samples were combined to explore one model of multiple mediation for young women involved in sport and exercise. The model explained 77% of the variance in eudaimonic well-being. The total and direct effects of self-compassion on eudaimonic well-being were $B = 0.66, p < .001$, and $B = 0.32, p < .01$, respectively. The difference between the total and direct effect or the total indirect effect of self-compassion on eudaimonic well-being through the four mediators had a point estimate of 0.35 with a 95% BC bootstrapped CI of 0.25 to 0.48. Therefore, the data were consistent with a model of multiple mediation whereby, as a set, passivity, responsibility, initiative, and self-determination partially mediated the self-compassion–eudaimonic well-being relationship. Specific indirect effects (all $p < .01$) were evident through passivity (0.11), responsibility (0.10), initiative (0.05), and self-determination (0.10). A summary of the

Table O.1

Descriptive statistics and scale reliabilities for self-compassion, eudaimonic well-being, passivity, responsibility, initiative, and self-determination

Variable (Measure)	# Items	Scale Range ^a	Mean	SD	Reliability α
Self-compassion (SCS)	26	1-5	3.21	0.64	.85
Eudaimonic well-being (SPWB)	84	1-6	4.72	0.60	.88
Passivity (CBAS)	31	1-5	1.74	0.48	.82
Responsibility (PRQ)	30	30-120	96.35	9.04	.84
Initiative (PGIS)	9	9-54	41.18	6.92	.87
Self-determination (SDS)	10	10-50	39.81	6.48	.80

Note. ^aScale Range refers to the lowest and highest possible score on each scale. *SCS* = Self-Compassion Scale. *SPWB* = Scales of Psychological Well-Being. *CBAS* = Cognitive-Behavioral Avoidance Scale. *PRQ* = Personal Responsibility Questionnaire. *PGIS* = Personal Growth Initiative Scale. *SDS* = Self-Determination Scale.

Table O.2

Pearson product moment correlations for self-compassion, eudaimonic well-being, passivity, responsibility, initiative, and self-determination for athletes, exercisers, and both athletes and exercisers

Variable	1.			2.			3.			4.			5.		
	Ath.	Ex.	Both	Ath.	Ex.	Both	Ath.	Ex.	Both	Ath.	Ex.	Both	Ath.	Ex.	Both
1. Self-compassion (SCS)	---	---	---												
2. Eudaimonic well-being (SPWB)	.79**	.56**	.77**	---	---	---									
3. Passivity (CBAS)	-.65**	-.31*	-.46**	-.93**	-.59**	-.68**	---	---	---						
4. Responsibility (PRQ)	.91**	.48**	.54**	.77**	.63**	.74**	-.68*	-.49**	-.64**	---	---	---			
5. Initiative (PGIS)	.49*	.17	.40**	.80**	.45**	.65**	-.80**	-.48**	-.61**	.52	.48**	.58**	---	---	---
6. Self-determination (SDS)	.89**	.42**	.50**	.87**	.61**	.65**	-.78**	-.28	-.52**	.89**	.40**	.52**	.65*	.31*	.52**

Note. * $p < .05$. ** $p < .01$. *Ath.* = athletes only ($n = 13$; degrees of freedom = 11). *Ex.* = exercisers only ($n = 42$; degrees of freedom = 40).

Both = both athletes and exercisers ($n = 70$; degrees of freedom = 68). *SCS* = Self-Compassion Scale. *SPWB* = Scales of Psychological Well-Being. *CBAS* = Cognitive-Behavioral Avoidance Scale. *PRQ* = Personal Responsibility Questionnaire. *PGIS* = Personal Growth Initiative Scale. *SDS* = Self-Determination Scale.

estimates, standard errors, and 95% BC bootstrapped CIs for the multiple mediation model are reported in Table O.3.

Discussion

The additional analyses reported here provide evidence for the relevance of, and link between, self-compassion and eudaimonic well-being in young women athletes and exercisers, as self-compassionate athletes and exercisers were found to have greater eudaimonic well-being. Findings suggest similarities among sub-samples of young women self-identifying as athletes, exercisers, or both athletes and exercisers: Relationships between self-compassion, eudaimonic well-being, and the mechanism variables were in the same direction, and the vast majority of relationships were similar across all three sub-samples. Of particular note, no significant differences were found between the self-compassion–eudaimonic well-being relationships in any of the sub-samples as indicated by fisher’s *r*-to-*z* transformation calculations. Findings from these additional analyses support Study 1 results in terms of the processes that might underlie the self-compassion–eudaimonic well-being relationship. As in Study 1, the data were consistent with a model of multiple mediation whereby reduced passivity, acceptance of personal responsibility, having initiative in life, and being self-determined might explain the relationship between self-compassion and eudaimonic well-being in young women involved in sport and exercise.

Given considerable overlap in the terms “sport” and “exercise” (i.e., the terms refer to organized forms of physical activity that take place in various contexts for play, recreational, competition, well-being, health and other reasons; Edwards, Edwards, & Basson, 2004), it was important to allow participants to self-select their identities in terms of these activities. As the majority of participants identified as both an athlete and an exerciser, it appears as though many athletes are also exercisers, and many exercisers are also athletes. Understanding the nuances of the sport and exercise domains, although challenging, should not be avoided. However, untangling the similarities and differences between athletes and exercisers was beyond the scope of my dissertation. As such, while I recognize the promise of self-compassion for both young women athletes and exercisers, I chose to focus specifically on athletes for my research. A fruitful direction for future research is to work to understand the role of self-compassion for young women exercisers.

Table O.3

Summary of the multiple mediation analysis with young women involved in sport and exercise ($N = 125$) examining the relationship between self-compassion and eudaimonic well-being through passivity, responsibility, initiative, and self-determination

	Bootstrapping		BC bootstrapped	
	product of coefficients		95% CI ^a	
	Point estimate	SE	Lower	Upper
Indirect Effects				
Passivity	.11	.05	.03	.22
Responsibility	.10	.03	.03	.16
Initiative	.05	.03	.004	.12
Self-determination	.10	.04	.03	.19
Total indirect	.35	.06	.25	.48
Fit statistics	$R^2 = .77$; $F(5, 119) = 81.73$, $p < .001$			

Note. SE = standard error. BC = bias corrected. CI = confidence interval.

^a5000 bootstrap sample

Research by Magnus et al. (2010) and Berry et al. (2010) provides initial insight into women exercisers' self-compassion. Magnus et al. (2010) found that self-compassion was linked with greater intrinsic motivation and lower extrinsic forms of motivation among young women exercisers, and was also linked with lower levels of social physique anxiety, ego goal orientation, and obligatory exercise behaviour. Berry et al. (2010) explored young women exercisers' experiences of self-compassion as it relates to the body, which included having an appreciation for their unique body, taking ownership of their body, and engaging in less social comparison. Together, these findings suggest that self-compassion might be important to women exercisers, as it might be a useful tool for accepting the physical self and might act as a buffer against outcomes that rely on self-evaluations and social comparisons.

Participation in exercise has been associated with greater self-esteem, self-efficacy, life-satisfaction, and happiness (Daley & Huffen, 2003; Scully, Kremer, Meade, Graham, & Dudgeon, 1998; Stubbe et al., 2007), which suggests that, like sport, exercise *can* play a role in the promotion of positive mental health. However, given the challenges and painful experiences that many women can encounter in exercise, it is important to identify ways in which exercise can provide opportunities for healthy development and promote positive well-being. Future research that explores young women exercisers' self-compassion and eudaimonic well-being will expand on previous findings by Magnus et al. (2010) and Berry et al. (2010), who initially identified the promise of self-compassion for women exercisers' experiences and well-being.

Appendix P: Study 1 Additional Quantitative Analyses with Self-Esteem and Hedonic Well-Being

Additional analyses were conducted to address two important issues. First, given criticism over self-esteem in the literature and the potential of self-compassion to be an alternative conceptualization of a healthy attitude toward the self (Berry et al., 2010; Magnus et al., 2010; Neff, 2003b; Neff, 2009), the relationship between self-esteem and self-compassion was examined, as well as the correlation between self-compassion and eudaimonic well-being with self-esteem partialled out. To further examine the differences between self-compassion and self-esteem, the relationships between self-compassion, self-esteem, and narcissism were examined, as narcissism has been found to be a shortcoming to self-esteem but not self-compassion (Leary et al., 2007; Neff, 2003b; Neff & Vonk, 2009). Second, as much of the well-being literature discusses the differences and similarities between eudaimonic and hedonic well-being (Deci & Ryan, 2008; Waterman et al., 2008), the relationship between these two types of well-being was examined. Assessing hedonic well-being also allowed me to examine how the study variables differentially related to the two types of well-being.

Additional measures

Self-esteem.

The 10-item Rosenberg Self-esteem Scale (1965; see Appendix P.1) was used to measure self-esteem. Participants responded on a scale from 0 (strongly disagree) to 3 (strongly agree), with higher scores indicating higher self-esteem. After negative items were reverse scored, a composite score was created by summing the items. In the present sample, the overall self-esteem score was 22.04 ($SD = 5.68$), and internal consistency of the scale was $\alpha = .91$. Internal consistency and construct validity have been reported in adolescent samples, as well as in sport and exercise samples (Choi, Meininger, & Roberts, 2006; Magnus et al., 2010; Mosewich et al., 2011).

Narcissism.

Narcissism was measured using the 40-item Narcissistic Personality Inventory (NPI; Raskin & Hall, 1979; see Appendix P.2). The scale asks participants to endorse one of two items within a pair, one of which is narcissistic, with the number of endorsed narcissistic items being the final narcissism score (e.g., *"I know that I am good because everybody keeps telling me so"*). Participants in the present study had a mean NPI score of 14.56 ($SD = 6.49$), and internal

consistency of the scale was $\alpha = .84$. The NPI has evidence of internal consistency, test-retest reliability, and construct validity (Raskin & Terry, 1988).

Hedonic well-being.

Participants completed the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffen, 1985; see Appendix P.3), which is a five-item, single factor measure of subjective evaluations of one's life. Using a seven-point scale ranging from 1 (strongly disagree) to 7 (strongly agree), participants responded to statements addressing the satisfaction they have with their life (e.g., "*So far I have gotten the important things I want in life*"). The sample in the present study had a mean SWLS score of 25.96 ($SD = 6.63$), and internal consistency of the scale was $\alpha = .91$. Evidence of internal consistency and convergent validity have been found for the scale (Diener et al., 1985; Pavot, Diener, Colvin, & Sandvik, 1991).

The short form of the Positive and Negative Affect scale (PANAS; Watson, Clark, & Tellegen, 1988; see Appendix P.4) provided a second assessment of hedonic well-being. The PANAS is a 20-item, five-point scale ranging from 1 (very slightly or not at all) to 5 (extremely), and consists of two subscales; the positive affect subscale (10 items; e.g., "*inspired*"), and the negative affect scale (10 items; e.g., "*ashamed*"). Separate scores were compiled for each subscale by summing the appropriate responses for positive affect ($M = 38.70$; $SD = 5.53$; $\alpha = .83$) and negative affect ($M = 20.52$; $SD = 6.54$; $\alpha = .87$). Watson et al. (1988) have found internal consistency and validation evidence for both subscales.

Results and Discussion

Similar to previous research (e.g., Leary et al., 2007; Neff, 2003a; Neff & Vonk, 2009), self-compassion was positively related to self-esteem ($r = .80, p < .01$) and self-esteem was positively related to narcissism ($r = .44, p < .01$). Self-compassion was also significantly related to narcissism ($r = .32, p < .01$); however, this relationship was no longer significant after partialling out self-esteem ($r = -.05, p = .68$), which reflects findings by Leary et al. (2007) and Neff and Vonk (2009). The relationship between self-compassion and eudaimonic well-being remained significant when self-esteem was partialled out ($r = .25, p < .05$), narcissism was partialled out ($r = .72, p < .01$), and both self-esteem and narcissism were partialled out ($r = .25, p < .05$).

Hedonic well-being and eudaimonic well-being were significantly related to each other (SWLS $r = .72, p < .01$; PANAS positive subscale $r = .74, p < .01$; PANAS negative subscale $r =$

-.65, $p < .01$), which replicates previous research that has found associations between the two types of well-being (e.g., Ryff, 1989; Waterman et al., 2008). In addition to being related to each other, the two types of well-being displayed similar relations with the other study variables. Self-compassion was related to both hedonic well-being ($r_s = -.53 - .63$, $p < .01$) and eudaimonic well-being ($r = .76$, $p < .01$); passivity was related to both hedonic well-being ($r_s = -.45 - .54$, $p < .01$) and eudaimonic well-being ($r = -.75$, $p < .01$); responsibility was related to both hedonic well-being ($r_s = -.56 - .62$, $p < .01$) and eudaimonic well-being ($r = .75$, $p < .01$); initiative was related to both hedonic well-being ($r_s = -.47 - .59$, $p < .01$) and eudaimonic well-being ($r = .71$, $p < .01$); and, self-determination was related to both hedonic well-being ($r_s = -.60 - .69$, $p < .01$) and eudaimonic well-being ($r = .71$, $p < .01$). Of note, the magnitude of the relationships between eudaimonic well-being and the remaining study variables is consistently larger than the magnitude of the relationships between hedonic well-being and the remaining study variables. These findings provide evidence that the two types of well-being appear to share many similarities, as indicated by shared variance, but also suggests that the two types of well-being are not synonymous and reflect different aspects of psychological wellness.

Appendix P.1: Self-esteem Scale

*Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle **SA**. If you agree with the statement, circle **A**. If you disagree, circle **D**. If you strongly disagree, circle **SD**.*

1. On the whole, I am satisfied with myself.	SA	A	D	SD
2. At times, I think I am no good at all.	SA	A	D	SD
3. I feel that I have a number of good qualities.	SA	A	D	SD
4. I am able to do things as well as most other people.	SA	A	D	SD
5. I feel I do not have much to be proud of.	SA	A	D	SD
6. I certainly feel useless at times.	SA	A	D	SD
7. I feel that I'm a person of worth, at least on an equal plane with others.	SA	A	D	SD
8. I wish I could have more respect for myself.	SA	A	D	SD
9. All in all, I am inclined to feel that I am a failure.	SA	A	D	SD
10. I take a positive attitude toward myself.	SA	A	D	SD

Appendix P.2: Narcissistic Personality Inventory

*Here you'll find a list of 40 statements, with one item labeled "A" and the opposite labeled "B". For each statement, choose the item from A or B that **best matches you** (even if it's not a perfect fit).*

1. A. ☐ I have a natural talent for influencing people.
B. ☐ I am not good at influencing people.
2. A. ☐ Modesty doesn't become me.
B. ☐ I am essentially a modest person.
3. A. ☐ I would do almost anything on a dare.
B. ☐ I tend to be a fairly cautious person.
4. A. ☐ When people compliment me I sometimes get embarrassed.
B. ☐ I know that I am good because everybody keeps telling me so.
5. A. ☐ The thought of ruling the world frightens the hell out of me.
B. ☐ If I ruled the world it would be a better place.
6. A. ☐ I can usually talk my way out of anything.
B. ☐ I try to accept the consequences of my behavior.
7. A. ☐ I prefer to blend in with the crowd.
B. ☐ I like to be the center of attention.
8. A. ☐ I will be a success.
B. ☐ I am not too concerned about success.
9. A. ☐ I am no better or worse than most people.
B. ☐ I think I am a special person.
10. A. ☐ I am not sure if I would make a good leader.
B. ☐ I see myself as a good leader.
11. A. ☐ I am assertive.
B. ☐ I wish I were more assertive.
12. A. ☐ I like to have authority over other people.
B. ☐ I don't mind following orders.
13. A. ☐ I find it easy to manipulate people.
B. ☐ I don't like it when I find myself manipulating people.

14. A. ☐ I insist upon getting the respect that is due me.
B. ☐ I usually get the respect that I deserve.
15. A. ☐ I don't particularly like to show off my body.
B. ☐ I like to show off my body.
16. A. ☐ I can read people like a book.
B. ☐ People are sometimes hard to understand.
17. A. ☐ If I feel competent I am willing to take responsibility for making decisions.
B. ☐ I like to take responsibility for making decisions.
18. A. ☐ I just want to be reasonably happy.
B. ☐ I want to amount to something in the eyes of the world.
19. A. ☐ My body is nothing special.
B. ☐ I like to look at my body.
20. A. ☐ I try not to be a show off.
B. ☐ I will usually show off if I get the chance.
21. A. ☐ I always know what I am doing.
B. ☐ Sometimes I am not sure of what I am doing.
22. A. ☐ I sometimes depend on people to get things done.
B. ☐ I rarely depend on anyone else to get things done.
23. A. ☐ Sometimes I tell good stories.
B. ☐ Everybody likes to hear my stories.
24. A. ☐ I expect a great deal from other people.
B. ☐ I like to do things for other people.
25. A. ☐ I will never be satisfied until I get all that I deserve.
B. ☐ I take my satisfactions as they come.
26. A. ☐ Compliments embarrass me.
B. ☐ I like to be complimented.
27. A. ☐ I have a strong will to power.
B. ☐ Power for its own sake doesn't interest me.

28. A. ☐ I don't care about new fads and fashions.
B. ☐ I like to start new fads and fashions.
29. A. ☐ I like to look at myself in the mirror.
B. ☐ I am not particularly interested in looking at myself in the mirror.
30. A. ☐ I really like to be the center of attention.
B. ☐ It makes me uncomfortable to be the center of attention.
31. A. ☐ I can live my life in any way I want to.
B. ☐ People can't always live their lives in terms of what they want.
32. A. ☐ Being an authority doesn't mean that much to me.
B. ☐ People always seem to recognize my authority.
33. A. ☐ I would prefer to be a leader.
B. ☐ It makes little difference to me whether I am a leader or not.
34. A. ☐ I am going to be a great person.
B. ☐ I hope I am going to be successful.
35. A. ☐ People sometimes believe what I tell them.
B. ☐ I can make anybody believe anything I want them to.
36. A. ☐ I am a born leader.
B. ☐ Leadership is a quality that takes a long time to develop.
37. A. ☐ I wish somebody would someday write my biography.
B. ☐ I don't like people to pry into my life for any reason.
38. A. ☐ I get upset when people don't notice how I look when I go out in public.
B. ☐ I don't mind blending into the crowd when I go out in public.
39. A. ☐ I am more capable than other people.
B. ☐ There is a lot that I can learn from other people.
40. A. ☐ I am much like everybody else.
B. ☐ I am an extraordinary person.

Appendix P.3: Satisfaction With Life Scale

Below are five statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number in the line preceding that item. Please be open and honest in your responding.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree

_____ 1. In most ways my life is close to my ideal.

_____ 2. The conditions of my life are excellent.

_____ 3. I am satisfied with life.

_____ 4. So far I have gotten the important things I want in life.

_____ 5. If I could live my life over, I would change almost nothing.

Appendix P.4: Positive and Negative Affect Scale

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to the word. Indicate to what extent you generally feel this way, that is, how you feel on the average. Use the following scale to record your answers.

1 Very slightly or not at all	2 A little	3 Moderately	4 Quite a bit	5 Extremely
_____ interested				_____ irritable
_____ distressed				_____ alert
_____ excited				_____ ashamed
_____ upset				_____ inspired
_____ strong				_____ nervous
_____ guilty				_____ determined
_____ scared				_____ attentive
_____ hostile				_____ jittery
_____ enthusiastic				_____ active
_____ proud				_____ afraid

Appendix Q: Basic Need Satisfaction in Sport Scale – Autonomy and Relatedness Subscales

Below are some sentences that describe personal feelings or experiences athletes might have regarding their sport. Please choose the number that indicates how true each of the phrases are to you. There are no right or wrong answers. Some items may appear similar but please respond to all the statements.

<i>Not true at all</i>		<i>Somewhat true</i>			<i>Very true</i>					
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>				
1) In my sport, I feel close to other people.				1	2	3	4	5	6	7
2) In my sport, I feel I am pursuing goals that are my own.				1	2	3	4	5	6	7
3) I feel I participate in my sport willingly.				1	2	3	4	5	6	7
4) In my sport, I get opportunities to make choices.				1	2	3	4	5	6	7
5) In my sport, I feel that I am being forced to do things that I don't want to do.				1	2	3	4	5	6	7
6) I show concern for others in my sport.				1	2	3	4	5	6	7
7) I choose to participate in my sport according to my own free will.				1	2	3	4	5	6	7
8) In my sport, I have a say in how things are done.				1	2	3	4	5	6	7
9) There are people in my sport who care about me.				1	2	3	4	5	6	7
10) In my sport, I can take part in the decision-making process.				1	2	3	4	5	6	7
11) In my sport, I really have a sense of wanting to be there.				1	2	3	4	5	6	7
12) In my sport, I feel I am doing what I want to be doing.				1	2	3	4	5	6	7
13) In my sport, there are people who I can trust.				1	2	3	4	5	6	7
14) I have close relationships with people in my sport.				1	2	3	4	5	6	7
15) In my sport, I get opportunities to make decisions.				1	2	3	4	5	6	7

Appendix R: Physical Self-Perception Profile – Revised – Sport Competence, Physical Conditioning, and Physical Strength Subscales

What I Am Like

These are statements that allow people to describe themselves. Please tick the box under each sentence or question to say how much you think the sentence is true for you or how *important* it is to you. There are no right or wrong answers, since people differ a lot. Your responses are anonymous.

EXAMPLE SENTENCES

I am very competitive when it comes to playing sports.

Not true at all for me	Only a little true for me	Sort of true for me	Really true for me
		✓	

This would mean that the above statement is *sort of true* for you.

1. I do very well at all kinds of sports. (SPORT1)

Not true at all for me	Only a little true for me	Sort of true for me	Really true for me

2. I am very confident about my level of physical conditioning and fitness compared to other people. (COND1)

Not true at all for me	Only a little true for me	Sort of true for me	Really true for me

3. I am physically stronger than most other people of my sex. (STREN1)

Not true at all for me	Only a little true for me	Sort of true for me	Really true for me

4. I am generally a lot better than average at sports. (SPORT2)

Not true at all for me	Only a little true for me	Sort of true for me	Really true for me

5. I make certain I take part in some form of regular vigorous physical exercise. (COND2)

Not true at all for me	Only a little true for me	Sort of true for me	Really true for me

6. I feel my muscles are much stronger than most others of my sex. (STREN2)

Not true at all for me	Only a little true for me	Sort of true for me	Really true for me

7. I am confident in taking part in sports activities, compared to other people. (SPORT3)

Not true at all for me	Only a little true for me	Sort of true for me	Really true for me

8. I usually have a high level of stamina and fitness. (COND3)

Not true at all for me	Only a little true for me	Sort of true for me	Really true for me

9. When it comes to situations requiring strength, I am one of the first people to step forward.
(STREN3)

Not true at all for me	Only a little true for me	Sort of true for me	Really true for me

10. I think that I am one of the best when it comes to joining in sports activities. (SPORT4)

Not true at all for me	Only a little true for me	Sort of true for me	Really true for me

11. I am at ease when it comes to fitness and exercise settings. (COND4)

Not true at all for me	Only a little true for me	Sort of true for me	Really true for me

12. I am confident when it comes to my physical strength. (STREN4)

Not true at all for me	Only a little true for me	Sort of true for me	Really true for me

13. I am quicker than most when it comes to picking up new skills in a sports situation.
(SPORT5)

Really true for me	Sort of true for me	Only a little true for me	Not true at all for me

14. I feel really confident about my ability to maintain regular exercise and physical condition.
(COND5)

Not true at all for me	Only a little true for me	Sort of true for me	Really true for me

15. I think that I am strong, and have well-developed muscles compared to other people.
(STREN5)

Not true at all for me	Only a little true for me	Sort of true for me	Really true for me

16. I tend to be among the first to join in sports activities. (SPORT6)

Not true at all for me	Only a little true for me	Sort of true for me	Really true for me

17. I feel that, compared to most, I always maintain a high level of physical conditioning.
(COND6)

Not true at all for me	Only a little true for me	Sort of true for me	Really true for me

18. I am better than others of my sex at dealing with situations requiring physical strength.
(STREN6)

Not true at all for me	Only a little true for me	Sort of true for me	Really true for me



Appendix S: Sense of Meaning Scale

To what degree do you typically feel that your sport activities and experiences are:

	Not at all					Very much	
1. meaningful	1	2	3	4	5	6	7
2. valuable	1	2	3	4	5	6	7
3. precious	1	2	3	4	5	6	7
4. full of significance	1	2	3	4	5	6	7
5. something I can treasure	1	2	3	4	5	6	7
6. dear to me	1	2	3	4	5	6	7
7. playing an important role in some broader picture	1	2	3	4	5	6	7
8. making a lot of sense to me	1	2	3	4	5	6	7
9. I can see where they fit into the bigger picture	1	2	3	4	5	6	7
10. I can see how they all add up	1	2	3	4	5	6	7
11. they contribute to various aspects of myself	1	2	3	4	5	6	7
12. they contribute to my community or the broader world	1	2	3	4	5	6	7

Appendix T: Subjective Vitality Scale

Overall, during my sport experiences:

	Not at all					Very much	
1. I feel alive and vital	1	2	3	4	5	6	7
2. Sometimes I am so alive I just want to burst	1	2	3	4	5	6	7
3. I have energy and spirit	1	2	3	4	5	6	7
4. I look forward to each new day	1	2	3	4	5	6	7
5. I nearly always feel awake and alert	1	2	3	4	5	6	7
6. I feel energized	1	2	3	4	5	6	7

Appendix U: Body Appreciation Scale

Please read each item and indicate your response using the following scale:

	Never 1	Seldom 2	Sometimes 3	Often 4	Always 5		
1. I respect my body.			1	2	3	4	5
2. I feel good about my body.			1	2	3	4	5
3. On the whole, I am satisfied with my body.			1	2	3	4	5
4. Despite its flaws, I accept my body for what it is.			1	2	3	4	5
5. I feel that my body has at least some good qualities.			1	2	3	4	5
6. I take a positive attitude toward my body.			1	2	3	4	5
7. I am attentive to my body’s needs.			1	2	3	4	5
8. My self-worth is independent of my body shape or weight.			1	2	3	4	5
9. I do not focus a lot of energy being concerned with my body shape or weight.			1	2	3	4	5
10. My feelings toward my body are positive, for the most part.			1	2	3	4	5
11. I engage in healthy behaviors to take care of my body.			1	2	3	4	5
12. I do not allow unrealistically thin images of women presented in the media to affect my attitudes toward my body.			1	2	3	4	5
13. Despite its imperfections, I still like my body.			1	2	3	4	5

Appendix V: Study 2 Hypothetical Scenarios

Imagine yourself in the following situation(s) as vividly as possible.

You are responsible for losing an athletic competition for your team.

How emotionally difficult would this scenario be for you (please choose one of the following)?

Not at all	Slightly	Somewhat	Moderately	Very	Extremely
1	2	3	4	5	6

You fail to meet an important personal goal or personal expectation in your sport.

How emotionally difficult would this scenario be for you (please choose one of the following)?

Not at all	Slightly	Somewhat	Moderately	Very	Extremely
1	2	3	4	5	6

You make a mistake during competition.

How emotionally difficult would this scenario be for you (please choose one of the following)?

Not at all	Slightly	Somewhat	Moderately	Very	Extremely
1	2	3	4	5	6

You are injured and unable to train or compete.

How emotionally difficult would this scenario be for you (please choose one of the following)?

Not at all	Slightly	Somewhat	Moderately	Very	Extremely
1	2	3	4	5	6

You have reached a plateau in training or competition.

How emotionally difficult would this scenario be for you (please choose one of the following)?

Not at all	Slightly	Somewhat	Moderately	Very	Extremely
1	2	3	4	5	6

Appendix W: Reactions to Study 2 Hypothetical Scenarios

Self-compassionate Reactions

Rate the degree to which you would react in the following ways if you found yourself in the situation described above.

1=not at all 2=slightly 3=somewhat 4=moderately 5=very 6=extremely

- _____ 1. I would try to be kind to myself.
- _____ 2. I would try to make myself feel better.
- _____ 3. I would keep the situation in perspective.
- _____ 4. I would be really hard on myself.

Positive Reactions

Rate the degree to which you would react in the following ways if you found yourself in the situation described above.

1=not at all 2=slightly 3=somewhat 4=moderately 5=very 6=extremely

- _____ 1. I would keep a positive outlook on the situation.
- _____ 2. I would focus on positive things.

Perseverant Reactions

Rate the degree to which you would react in the following ways if you found yourself in the situation described above.

1=not at all 2=slightly 3=somewhat 4=moderately 5=very 6=extremely

- _____ 1. I would keep striving for something more.
- _____ 2. I would be able to overcome the obstacle I'm dealing with.

Responsible Reactions

Rate the degree to which you would react in the following ways if you found yourself in the situation described above.

1=not at all 2=slightly 3=somewhat 4=moderately 5=very 6=extremely

- _____ 1. I would take responsibility to rectify the situation.
_____ 2. I would take responsibility to make the situation better.

Ruminative Reactions

Rate the degree to which you would react in the following ways if you found yourself in the situation described above.

1=not at all 2=slightly 3=somewhat 4=moderately 5=very 6=extremely

- _____ 1. I would dwell on the situation.
_____ 2. I would over-analyze the situation.

Passive Reactions

Rate the degree to which you would react in the following ways if you found yourself in the situation described above.

1=not at all 2=slightly 3=somewhat 4=moderately 5=very 6=extremely

- _____ 1. I would just give up.
_____ 2. I would quit trying.

Self-critical Reactions

Rate the degree to which you would react in the following ways if you found yourself in the situation described above.

1=not at all 2=slightly 3=somewhat 4=moderately 5=very 6=extremely

- _____ 1. I would be very critical of myself.
_____ 2. I would be hard on myself.

Appendix X: Study 2 University Ethics Approval



UNIVERSITY OF
SASKATCHEWAN

Behavioural Research Ethics Board (Beh-REB)

Certificate of Approval

PRINCIPAL INVESTIGATOR
Kent C. Kowalski

DEPARTMENT
Kinesiology

BEH#
12-352

INSTITUTION(S) WHERE RESEARCH WILL BE CONDUCTED
Saskatoon

STUDENT RESEARCHER(S)
Leah Ferguson

FUNDER(S)
SOCIAL SCIENCES AND HUMANITIES RESEARCH
COUNCIL OF CANADA (SSHRC)

TITLE
The Role of Self-compassion in Young Women Athletes' Striving for Human Potential During Emotionally Difficult Times in Sport

ORIGINAL REVIEW DATE
02-Jan-2013

APPROVAL ON
16-Jan-2013

APPROVAL OF:
Application for Behavioural Research Ethics
Review
Hypothetical Sport-Specific Scenarios
Data Collection Tools
Instructor Mail/Email/Phone Communication
Script
Principal Mail/Email/Phone Communication
Script
Consent Form

EXPIRY DATE
15-Jan-2014

Full Board Meeting ☐

Delegated Review ☒

CERTIFICATION

The University of Saskatchewan Behavioural Research Ethics Board has reviewed the above-named research project. The proposal was found to be acceptable on ethical grounds. The principal investigator has the responsibility for any other administrative or regulatory approvals that may pertain to this research project, and for ensuring that the authorized research is carried out according to the conditions outlined in the original protocol submitted for ethics review. This Certificate of Approval is valid for the above time period provided there is no change in experimental protocol or consent process or documents.

Any significant changes to your proposed method, or your consent and recruitment procedures should be reported to the Chair for Research Ethics Board consideration in advance of its implementation.

ONGOING REVIEW REQUIREMENTS

In order to receive annual renewal, a status report must be submitted to the REB Chair for Board consideration within one month of the current expiry date each year the study remains open, and upon study completion. Please refer to the following website for further instructions: http://www.usask.ca/research/ethics_review/

Beth Bilson, Chair
University of Saskatchewan
Behavioural Research Ethics Board

Please send all correspondence to:

Research Ethics Office
University of Saskatchewan
Box 5000 RPO University, 1602-110 Gymnasium Place
Saskatoon SK S7N 4J8
Telephone: (306) 966-2975 Fax: (306) 966-2069

Appendix Y: Study 2 Catholic School Division Approval



January 28, 2013

Leah Ferguson Ph.D. Candidate
College of Kinesiology
University of Saskatchewan
leah.ferguson@usask.ca

Dear Ms. Ferguson;

I have reviewed your application to conduct research within Greater Saskatoon Catholic Schools for the project entitled, *The Role of Self-compassion in Young Women Athletes' Striving for Human Potential During Emotionally Difficult Times in Sport*. Thank you for including an overview of the study, a copy of the Behavioural Research Ethics Approval and the instruments that you will be using to collect your data. You are approved to conduct your research within Greater Saskatoon Catholic Schools from January 28, 2013 to November 14, 2013, with one adaptation. When seeking the participation of the girls, you are required to present the opportunity to participate in your research study following a practice and only to those girls who voluntarily agree to stay and hear your presentation. The relationship between a coach and their athletes can be characterized as a relationship of power and we would not want to exploit that relationship with the perception that the coach requires or encourages their participation. I would also ask that you forward me a copy of the research findings upon completion of your study.

I invite you to contact the principals of the schools that you have identified to seek their approval to conduct your research within the context of their schools. Thank you for your interest in conducting research within Greater Saskatoon Catholic Schools and good luck with your study. Please do not hesitate to contact me should you require anything further.

Sincerely;

Gordon A. Martell,
Superintendent of Education

C Dave Knight, Bethlehem Catholic High School
Cheryl Thorson, Bishop James Mahoney High School
Ren Garchinski, Holy Cross High School
Scott Gay, St. Joseph High School

Appendix Z: Study 2 Public School Division Approval



Saskatoon Public Schools
Inspiring Learning

310-21st Street East, Saskatoon, Saskatchewan S7K 1M7

Tel: (306)683-8200 • Fax: (306) 657-3900

www.spsd.sk.ca

Avon Whittles, Director of Education

February 6th, 2013

Leah Ferguson
87 Campus Drive
College of Kinesiology
Saskatoon, SK S7N 5B2

Dear Ms. Ferguson:

I have received and approved your request to conduct research in Saskatoon Public Schools. Your study entitled, *"The Role of Self-Compassion In Young Women Athletes' Striving for Human Potential During Emotionally Difficult Times, In Sports."* promises to provide interesting and relevant information.

Please contact principals directly and provide them with the written details of your study, a copy of the questionnaire and a copy of this letter when seeking permission to conduct research in the school.

Our staff and students voluntarily participate in research and are free to withdraw from the research at any time.

Upon completion of your research, we request that you submit a copy of your study to our office. Best wishes for success with your research.


Dr. Scott Tunison

Coordinator: Research and Measurement

ST: tf

Copy to:

Brent Hills – Principal at Aden Bowman Collegiate
Cody Hanke – Principal at Bedford Road Collegiate
Tom Sargeant – Principal at Centennial Collegiate
Paul Humbert – Principal at Evan Hardy Collegiate
Shirley Figley – Principal at Marion M Graham Collegiate
Rick Iverson – Principal at Tommy Douglas Collegiate
Brian Flaherty – Principal at Walter Murray Collegiate
Bruce Bradshaw – Superintendent of Education
Dean Newton – Superintendent of Education
Shane Skjerven – Superintendent of Education
Donnalee Weinmaster – Superintendent of Education
Withman Jaigobin – Superintendent of Education



Sport & Human Flourishing

You are invited to participate in a research project entitled **The Role of Self-compassion in Young Women Athletes' Striving for Human Potential during Emotionally Difficult Times in Sport**. Please read this form carefully, and **feel free to email or call the researchers with any questions** you might have.

Researchers:

Leah Ferguson
Ph.D. Candidate
College of Kinesiology
University of Saskatchewan
Phone: 966-1099
Email: leah.ferguson@usask.ca

Dr. Kent Kowalski
Professor
College of Kinesiology
University of Saskatchewan
Phone: 966-1079
Email: kent.kowalski@usask.ca

Purpose and Procedure: The purpose of this study is to explore the relationship between self-compassion and eudaimonic well-being during emotionally difficult times in sport for young women athletes. Self-compassion is defined as treating oneself with kindness during times of suffering or failure, and eudaimonic well-being is an index of well-being that reflects psychological flourishing, including aspects such as personal growth and self-acceptance.

Participation in this study is completely voluntary. If you do choose to become involved, you are asked to complete an online questionnaire package, which inquires about your sport experiences and psychological well-being. A sample question is, "I am the kind of person who likes to give new things a try". The questionnaire package will take approximately 45-60 minutes to complete. In an effort to show our appreciation for your time, you will receive a \$10.00 Booster Juice gift card. You will be contacted via email to receive your gift card. Your email address will be kept separately from your survey responses.

Funding: This study is funded by a Social Sciences and Humanities Research Council of Canada grant awarded to Dr. Kent Kowalski.

Potential Benefits: Although no benefits of participating in this study can be guaranteed, this study will assist in providing insight into the relations between self-compassion and human flourishing in the context of sport. This is an important step in order for researchers to better understand how self-compassion might contribute to athletes' psychological health. Little research has been conducted in the area of self-compassion, human flourishing, and sport, so the results generated from this study may be beneficial to you and other young women athletes.

Potential Risks: There are no known or anticipated physical or psychological risks associated with participating in this study. You have the right to refuse to answer any question. Not answering a question or withdrawing from the study will result in no penalty to you or anyone else. You are encouraged to contact the researchers at any time (before, during, or after the study) to ask any questions that you may have. In the event that you would like to further

discuss your feelings regarding the issues discussed in the study, Saskatoon Mental Health Services can assist you:

Mental Health Services - services available to the public, no fee

Phone # 655-7950

- Youth Mental Health Services (for adolescents 12-19 years old)
- Adult Mental Health Services (for adults 19 years and older)

Storage of Data: All research material will be stored securely in the office of Dr. Kent Kowalski at the University of Saskatchewan. Only the researchers will have access to the data. The data will be stored for a minimum of five years after completion of the study. This is standard protocol for any data that may be published in an academic journal and/or presented at a professional conference.

Confidentiality: The data from the study will be used as part of the student researcher's Doctoral dissertation, as well as to produce a manuscript in hopes of publishing in a scholarly journal and/or being presented at a conference. Only the research team will have access to the completed questionnaires. Written reports of the data will be reported in aggregate/summarized form so that it will not be possible to identify individuals.

Right to Withdraw: Your participation is voluntary, and you can answer only those questions that you are comfortable with. Not answering a question or withdrawing from the study will result in no penalty to you or anyone else. You may withdraw from the study for any reason, at any time, without explanation by closing your web browser. The decision to withdraw will not affect any of your current or future activities. Your right to withdraw from the study will apply until your survey responses have been submitted. After this point, your anonymous responses cannot be recognized to be withdrawn. You will be advised of any new information that may have a bearing on your decision to participate.

Questions: If you have any questions concerning the research project, please feel free to contact the researchers. You are also free to contact the researchers if you have questions at a later time. This research project has been approved on ethical grounds by the University of Saskatchewan Behavioural Research Ethics Board on January 16, 2013. Any questions regarding your rights as a participant may be addressed to that committee through the Ethics Office toll free at 1-888-966-2975 or ethics.office@usask.ca.

Results from this study will be summarized and posted online following data collection. The research team will contact you via email to provide you with a link to the research website. You may also contact the research team to find out the results of the study or request a copy of the published manuscript.

Consent to Participate: By completing and submitting the questionnaire, **YOUR FREE AND INFORMED CONSENT IS IMPLIED** and indicates that you understand the above conditions of participation in this study. Please print this page if you would like to keep this information for your records.

I have read and understood the description provided; I have had an opportunity to ask questions and my questions have been answered. I consent to participate in the research project.

Yes

☐ No

☐

**Sport and Human Potential:
QUESTIONNAIRE PACKAGE**

Thank you for taking the time to participate in this study. This questionnaire should take you approximately 45-60 minutes to complete. Please answer each question honestly. If you feel uncomfortable answering any question, you may choose to skip over it if you wish. All information received is held in confidence. If you have any questions at all, please feel free to contact the researchers at anytime. Please provide your...

Age (please indicate numerical age in years; e.g., 18): _____

Height (please specify feet, inches, or cm): _____

Weight (please specify kg or lbs): _____

Email Address: _____

(will only be used to contact you in order to send \$10.00 Booster Juice gift card)

If university student:

Year of university (e.g., 2): _____

College/Department: _____

If high school student:

Grade (e.g., 11): _____

Marital Status:

☐

Single

☐

Married/Common Law

☐

Separated/Divorced

☐

Widowed

Sociocultural Information:

How would you describe yourself? You may mark more than one or specify, if applicable.

☐ White

☐ Aboriginal

☐ Chinese

☐ South Asian (*e.g., East Indian, Pakistani, Sri Lankan, etc.*)

☐ Black

☐ Filipino

☐ Latin American

☐ Southeast Asian (*e.g., Vietnamese, Cambodian, Malaysian, Laotian, etc.*)

☐ Arab

☐ West Asian (*e.g., Iranian, Afghan, etc.*)

☐ Korean

☐ Japanese

☐ Other – *Please specify:* _____

Sport Involvement

Please indicate the levels of sport competition you have competed at **IN THE LAST 12 MONTHS**. Also indicate the sport(s) that each level is applicable to (i.e., what sport(s) you competed in at each level).

	LEVEL	SPORT(S)
	<i>Recreational</i> (competing in intramurals or in a recreational league)	
	<i>Local</i> (competing against athletes from your city/town)	
	<i>Provincial</i> (competing against athletes from around the province of Saskatchewan)	
	<i>Regional</i> (competing against athletes from the western provinces [i.e., BC, AB, SK, MB])	
	<i>National</i> (competing at a National Championship)	
	<i>International I</i> (competing against athletes from a country other than Canada)	
	<i>International II</i> (member of a national team [i.e., representing/represented Canada])	

During the PAST WEEK, how many times did you play an active sport, such as baseball, softball, basketball, soccer, swimming, or football?

0

1

2

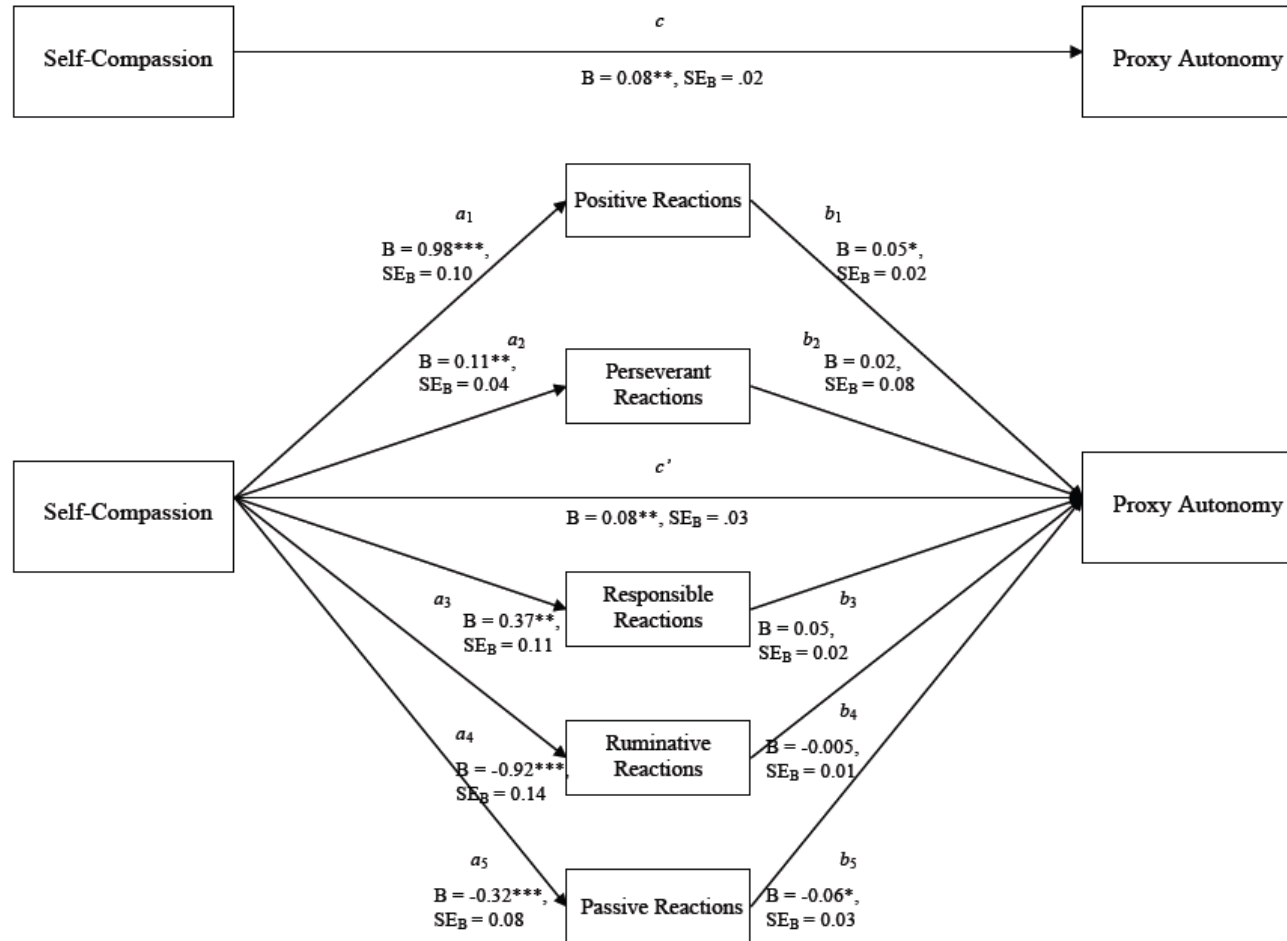
3

not at all

5 or more times

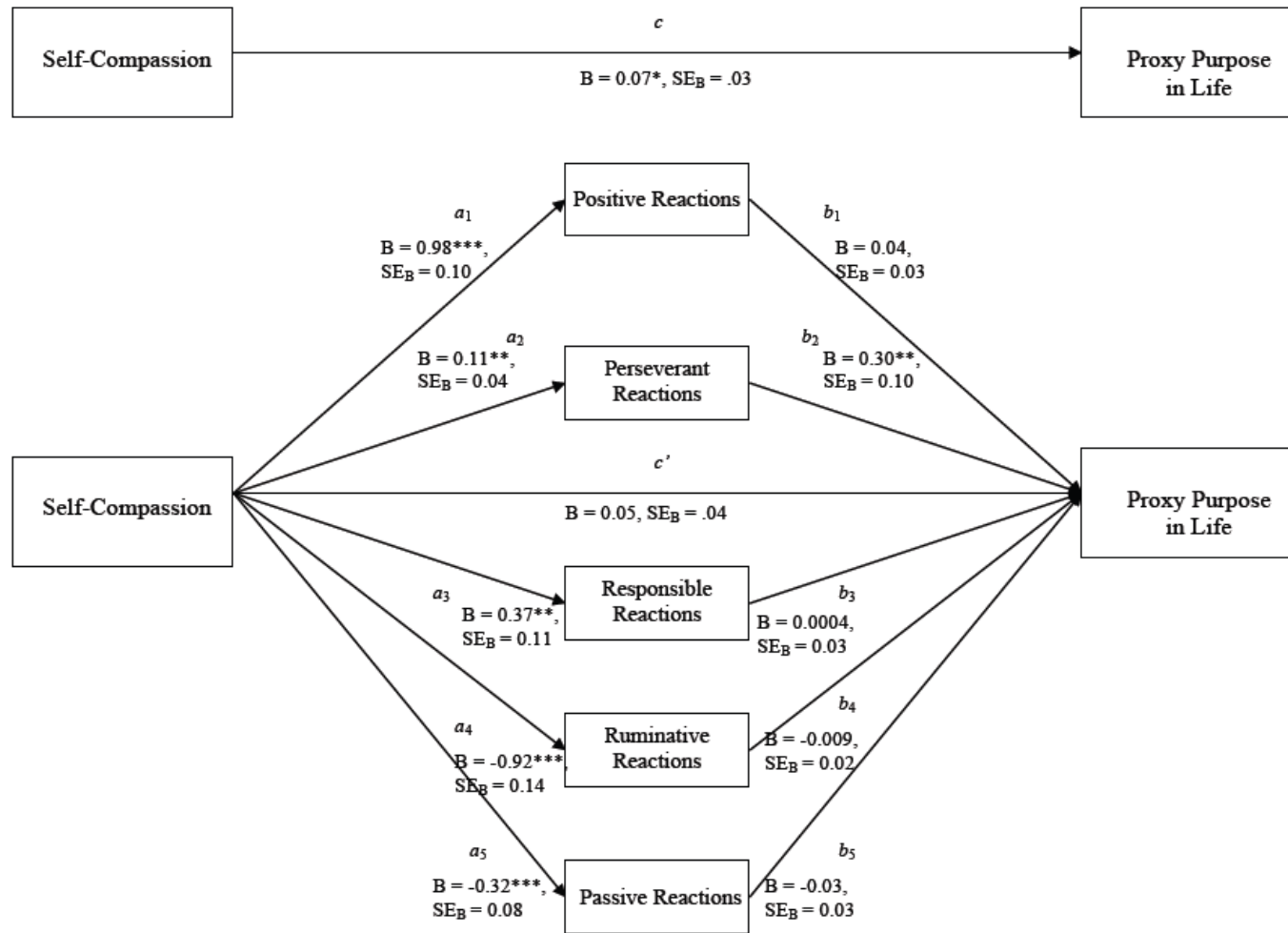
Appendix CC: Study 2 Additional Significant Path Models

Figure CC.1: The path model of self-compassion on proxy autonomy in Study 2.



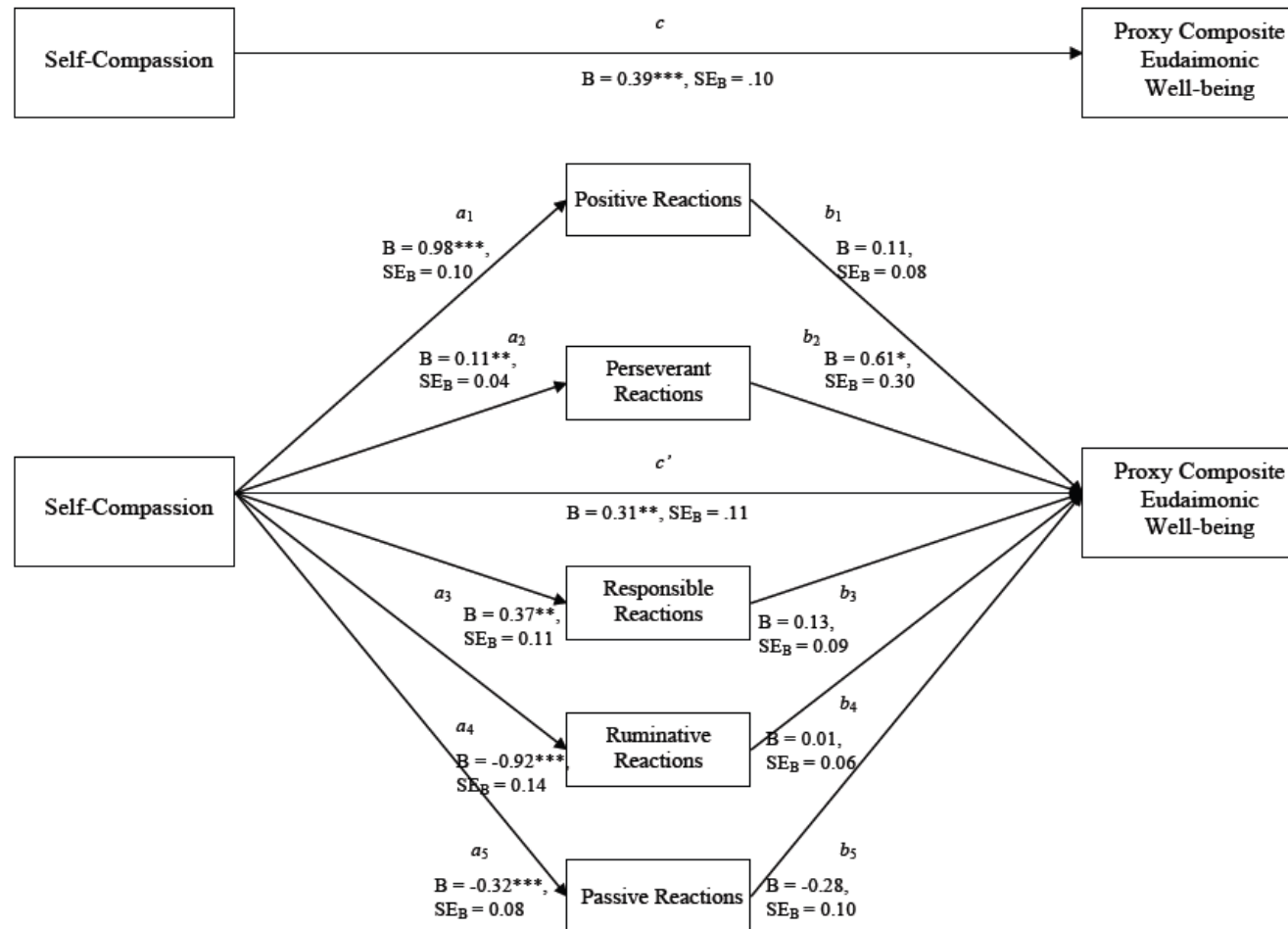
Note. The c coefficient represents the total relationship between self-compassion and proxy autonomy. The c' coefficient represents the strength of the association between self-compassion and proxy autonomy after controlling for the five indirect paths. The a and b paths represent the specific indirect paths involving the hypothesized mediators. * $p < .05$. ** $p < .01$. *** $p < .001$.

Figure CC.2: The path model of self-compassion on proxy purpose in life in Study 2.



Note. The c coefficient represents the total relationship between self-compassion and proxy purpose in life. The c' coefficient represents the strength of the association between self-compassion and proxy purpose in life after controlling for the five indirect paths. The a and b paths represent the specific indirect paths involving the hypothesized mediators. * $p < .05$. ** $p < .01$. *** $p < .001$.

Figure CC.3: The path model of self-compassion on proxy composite eudaimonic well-being in Study 2.



Note. The c coefficient represents the total relationship between self-compassion and proxy composite eudaimonic well-being. The c' coefficient represents the strength of the association between self-compassion and proxy composite eudaimonic well-being after controlling for the five indirect paths. The a and b paths represent the specific indirect paths involving the hypothesized mediators.

* $p < .05$. ** $p < .01$. *** $p < .001$.